MIAP Workshop Program 2019

MIAP Basic Imaging Techniques Workshop

The Life Imaging Center (LIC) hosts more than 20 microscope systems. For this reason, most modern microscopic techniques can be performed in the facility. The LIC has a major focus on live cell imaging of all kind of cells, organisms and culture systems used in cell signaling research, developmental biology and neurobiology.

To provide the best experience and teaching to over 250 users of the facility, the LIC offers various microscopy workshops throughout the year. This basic workshop is not limited to facility users and is equally suited for life science students, *Ph.D.* students, staff scientists and postdocs. The 3-day basic workshop covers basic methods of imaging techniques on wide field and confocal systems and image analysis with specialized software.

March 13th – 15th 2019

Life Imaging Center (LIC), Center for Biological Systems Analysis (ZBSA)
Albert-Ludwigs University Freiburg
Habsburgerstr. 49, 79104 Freiburg im Breisgau

Organization: Microscopy and Image Analysis Platform (MIAP), University of Freiburg
Life Imaging Center (LIC), University of Freiburg

Teachers: Roland Nitschke (LIC, MIAP)
Iris Bierschenk (LIC), Sabine Haxelmans (LIC), Angela Naumann (LIC), Sylvia Olberg (MIAP), Tobias Wernet (MIAP)

Day 1: March 13th, 08:30 – 18:00	
08:30 – 09:00	**Welcome & General Workshop Introduction**
09:00 – 10:00	**Block A: Basics in Microscopy**
10:00 – 10:15	**Coffee Break**
10:15 – 12:30	**Practical Part: Wide field or LSM Systems (Diatoms, Live Cell, DIC)**
12:30 – 13:15	**LUNCH BREAK**
13:15 – 14:15	**Block B: Sample Preparation**
14:15 – 16:15	**Practical Part: Wide field or LSM Systems (Fluorescent beads, fixed fluorescent cells)**
16:15 – 16:30	**Coffee Break**
16:30 – 17:00	**Hands-On Session: Analysis with ZEN blue**
17:00 – 18:00	**Data Analysis**

Day 2: March 14th, 08:30 – 18:00	
08:30 – 10:00	**Block C: Imaging Technology (CCD Camera, Pinhole, PSF, …)**
10:00 – 10:15	**Coffee Break**
10:15 – 12:30	**Practical Part: Wide field or LSM Systems (Fluorescent live cells)**
12:30 – 13:15	**LUNCH BREAK**
13:15 – 14:15	**Block D: Image Acquisition (Dyes, Spectral Recording, Filter, FRAP)**
14:15 – 16:15	**Practical Part: LSM Systems (Fluorescent live cells and live cells transfected with Dronpa)**
16:15 – 16:30	**Coffee Break**
16:30 – 17:00	**Hands-On Session: Analysis with ZEN black**
17:00 – 18:00	**Data Analysis**

Day 3: March 15th, 08:30 – 18:00	
08:30 – 10:30	**Practical Part: Wide field and LSM Systems (Fluorescent live cells and live cells transfected with Dronpa)**
10:30 – 10:45	**Coffee Break**
10:45 – 12:30	**Block E: Image Analysis (Deconvolution, Huygens, Imaris)**
12:30 – 13:15	**LUNCH BREAK**
13:15 – 16:00	**Data Analysis, Preparation of Presentation**
16:00 – 16:15	**Coffee Break**
16:15 – 17:15	**Participant's Presentations**
17:15 – 18:00	**Discussion, Feedback and Evaluation**

- **This is a preliminary announcement / agenda, which is subject to changes.**
- **For more information, please contact MIAP: https://www.miap.eu info@miap.eu**