

Mac Microscopy Summer School

*From Imaging to
Analysis*

3 days theory and hands-on training

**Sainte-Anne-de-Bellevue
June 6-8**



McGill

Multi-scale Imaging Facility



This course is for you if want to....

- ... get up to speed on modern optical and fluorescence based microscopy
- ... make informed choices when choosing microscopical equipment
- ... assess the potential of selected high-end microscopes using your own samples
- ... get a basic training on ImageJ/FIJI to analyse and prepare your images for publication

The summer school offers **theoretical background** and **practical hands-on sessions**

Theoretical lectures

- Optical and Fluorescence Microscopy:** Microscope components, Alignment, Differential Interference Contrast (DIC), Phase contrast, Principles of fluorescence imaging, Fluorochromes
- Contrast Enhancement Techniques:** Structured illumination microscopy (Apotome), Deconvolution, Confocal laser scanning microscopy
- Advanced microscopy techniques:** Spinning disk, super-resolution-PALM, Light sheet microscopy, correlative microscopy in a glimpse
- Image processing and analysis:** How to analyse and prepare your images for publication. Basic operation using ImageJ/FIJI
- How to choose your microscope:** Criteria, features, logistics and tips you need to look at when buying a new microscope

Practical demonstrations and hands-on

- Zeiss LSM 710 with AiryScan
- Zeiss Axio Imager with Apotome
- Zeiss Axio Zoom.V16 with Apotome
- Zeiss Spinning disk confocal microscope and TIRF
- Microscope maintenance:** Components, Eyepieces, Koehler illumination, Filters, Objectives, General maintenance...
- ImageJ / FIJI introduction workshop**
- Places for the hands-on sessions are limited and will be attributed on a first come first served base**

Venue

McGill University – Macdonald Campus
Raymond Building
21 111 Lakeshore rd., Sainte-Anne-de-Bellevue, Qc, H9X 3V9
Room R3-045

Registration fees

Early bird registration deadline May 18, 2018
Late registration possible if places are available

Registration type	Fees
Mac Campus students and postdocs full registration - before April 27	175 \$
Early bird full registration	300 \$
Early bird full registration for students and post-docs	210 \$
Registration after early bird deadline	420 \$
Theoretical lectures and Image J workshop only	200 \$

Included in your registration fees:

- Welcome package
- Lectures notes (PDF)
- Meals and Coffee breaks for 3 days
- Access to the lectures and workshops
- Material needed for the workshops

Mac Microscopy Summer School Schedule

	June 6	June 7	June 8
8:15	Registration		From 8:30 to 10:30
9:00	Optical and Fluorescence Microscopy (part 1)	General Workshop: Basics of ImageJ / Fiji*	Groups hands-on and demo
10:20	Coffee break		
10:40	Optical and Fluorescence Microscopy (part 2)	Advanced microsopy techniques	Coffee break
			From 10:45 to 12:45
			Groups hands-on and demo
11:45	Lunch provided		
12:45	Contrast Enhancement Techniques	How to choose your microscope?	Lunch provided
			From 13:45 to 15:45
14:45	Coffee break		Groups hands-on and demo
15:00	Image processing and analysis for publication	Groups hands-on and demo	Coffee break
			From 16:00 to 18:00
17:00	End of the workshop		Groups hands-on and demo

Practical demonstrations and hands-on

Zeiss LSM 710 with AiryScan
 Zeiss Spinning confocal microscope with TIRF
 Zeiss Axio Zoom.V16 with Apotome
 Zeiss Axio Imager with Apotome
 ImageJ/FIJI basic workshop*

*Please note that you have to bring your own laptop where ImageJ or FIJI should be installed prior to this session.

You will be assigned a hands-on group number before June 1st.