

BNMI 2025

Gothenburg, Sweden, August 19-22, 2025

BNMI 2025 pre-symposium workshops

Optical Tissue Clearing Techniques for 3D Lightsheet

Unlock the potential of deep imaging with this workshop on Optical Tissue Clearing Techniques, designed to complement 3D lightsheet microscopy. Tissue clearing transforms biological specimens into transparent structures, enabling unprecedented imaging depth without physical sectioning. When combined with lightsheet microscopy, tissue clearing allows researchers to visualize intact 3D biological structures—such as neuronal networks and whole organs—with high precision and minimal photobleaching.

This one-and-a-half-day workshop offers hands-on demonstrations in tissue clearing workflows optimized for light sheet microscopy. Participants will be introduced to key concepts through a combination of introductory lectures and live demonstrations. Topics include sample preparation for various tissue types, mounting strategies for systems such as the Zeiss Lightsheet 7 and Miltenyi UltraMicroscope Blaze, as well as basic data management and processing for large datasets.

With an emphasis on adaptability, attendees will learn how to optimize clearing protocols for their specific samples and fluorescence labels—empowering them to apply these techniques to their own research projects.

The workshop is structured into three focused sessions:

- 3D imaging of large, cleared samples using the Zeiss Lightsheet 7
- Miltenyi Biotec UltraMicroscope Blaze for 3D imaging at cellular resolution
- Imaging smaller cleared samples with confocal microscopy

Location: Centre for Cellular Imaging, Medicinaregatan 5A-7A, 413 90 Gothenburg

Time: Monday, 18 August (09:00–17:00) – Tuesday, 19 August (09:00–12:00)



Workshop schedule:

18th of August:

09.00 – 09.15 Welcome

09.15 - 10.00 Introduction to Optical Tissue Clearing Techniques

10.00 - 10.15 Coffee break (with coffee and cake)

10.15 - 12.45 Round 1 (parallel session)

12.45 – 13.45 Lunch break

13.45 – 16:15 Round 2 (parallel session)

16:15 – 16:30 Coffee break

16:30 – 17:00 Q & A (Optional)

19th of August:

09.00 - 11.30 Round 3 (parallel session)

11.30 - 12.30 Q & A

All participants will be divided into three different groups, which will determine the order of the parallel sessions. All relevant information will be provided during the 1st day introduction.

Meet point:

18th of August:

Meet point:	Main entrance door
Location:	Academicum, Medicinaregatan 3, Göteborg University
Map:	Meeting room location

19th of August:

Meet point:	CCI main entrance door
Location:	Centre för Cellular Imaging, Medicinaregatan 7A
Map:	CCI map