Microscopy Autumn School 2023

October 23rd - 27th

Target attendees: PhD students, Postdocs and technicians

Scope: Advanced methods in Microscopy

Aim: Gain knowledge and training on advanced methods in light and electron microscopy

Organizer: Microscopy CORE Lab
Venue: MCL – UNS50 FHML/UM

Microscopy Autumn School 2023			October 23rd - 27th	
Monday 23rd	**Tuesday 24th**	**Wednesday 25th**	**Thursday 26th**	**Friday 27th**
Morning 9-11 Introductory Lectures: 1. *¨General introduction¨* **Carmen López-Iglesias** 2.*¨Advanced Light Microscopy¨* **Dimitris Kapsokalyvas**	Morning 9-11 Introductory Lectures: *¨Transmission Electron Microscopy¨* 1.*¨Conventional methods¨* 2.*¨Cryo-preparation methods¨* **Carmen López-Iglesias**	Morning 9-11 Introductory Lectures: *¨Scanning Electron Microscopy¨* 1. *¨Principle and applications¨* 2. *¨Volume & correlative SEM¨* **Kèvin Knoops**	Morning 9-11 Introductory Lectures: *¨cryo-EM¨* 1. *¨Vitrification & Cryo-Electron Tomography¨* **Navya Premaraj** 2.*¨Single Particle Analysis¨* **Ye Gao**	Morning 9-11 Introductory Lectures: *¨Image processing¨* **Kèvin Knoops** **Chris Lewis**
Afternoon 12-17 Workshops 1, 2, 3, 4	Afternoon 12-17 Workshops 1, 2, 3, 4	Afternoon 12-17 Workshops 1, 2, 3, 4	Afternoon 12-17 Workshops 1, 2, 3, 4	Afternoon 12-16 Workshop 5

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Workshop number	**Title/Instruments and workflows**	**Teachers and Tutors**
Workshop 1	**Light Microscopy**: Confocal STED superresolution, Two-Photon, Spinning disk	Helma Kuijpers Anne Gemmink Gert Schaart
Workshop 2	**TEM**: Conventional, Cryo-methods (HPF, freeze/substitution, cryo/sectioning), RT-TEM RT-Tomography, immunolabeling	Willine van de Wetering Elly van Donselaar Carmen López-Iglesias
Workshop 3	**SEM**: Conventional SEM (+EDX), High Resolution-SEM, FIB-SEM, Slice and view	Hans Duimel Kèvin Knoops
Workshop 4	**Cryo-EM**: Vitrification, Cryo-SEM, FIB-SEM (cryo-lamella), cryo-TEM for single particle and cryo-electron tomography	Chris Lewis Navya Premaraj Sneha Hakke
Workshop 5	**Image processing** Image properties, manipulation, quantification & visualization. Microscopy data quality control	Chris Lewis Kèvin Knoops