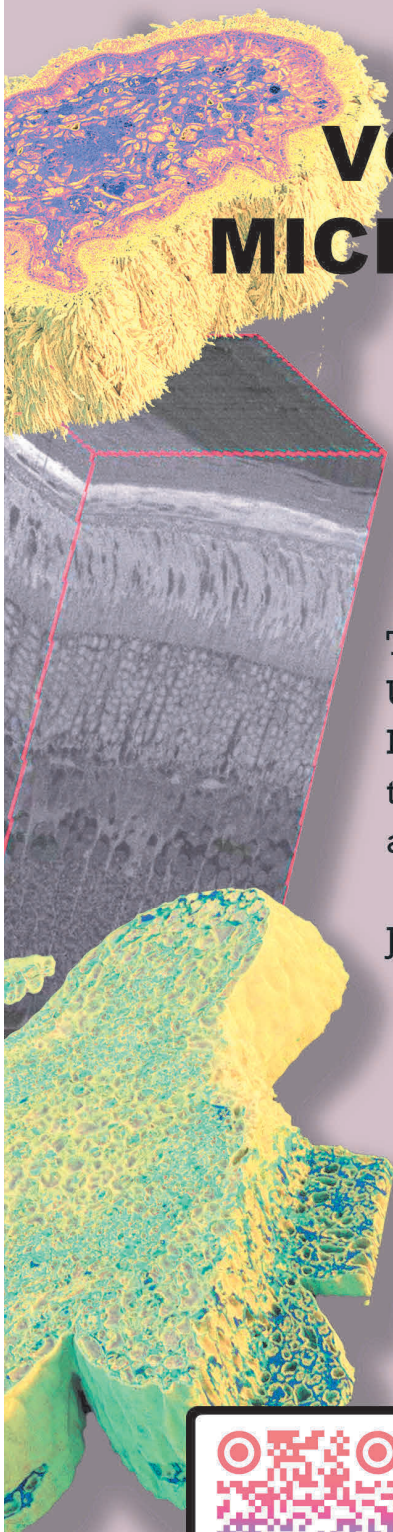
INSTITUT Pasteur
Ultrastructural BioImaging
Core facility

NUS National University of Singapore | Microscopy Cluster
Yong Loo Lin School of Medicine

MERLION 2026:

VOLUME ELECTRON MICROSCOPY WORKSHOP



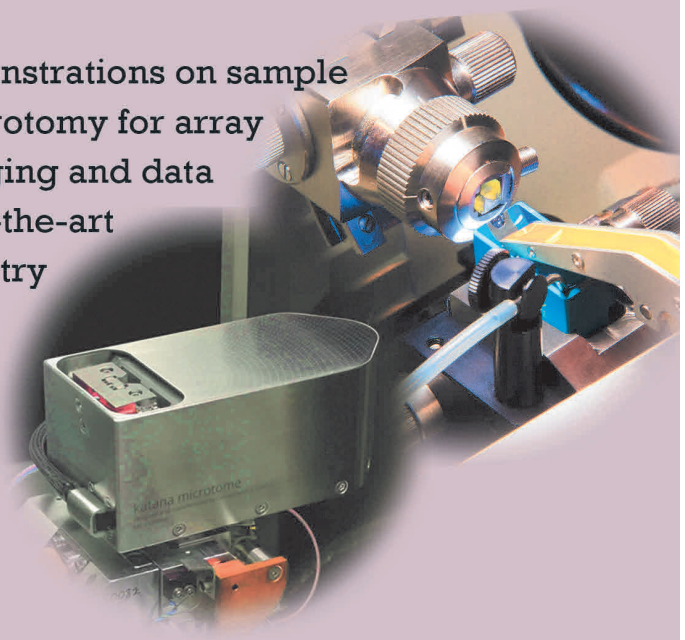
DATE:
23 to 26 November 2026 (9am to 5.30pm)

VENUE:
23 November - MD4 Seminar room #02-03E
24 to 26 November - Electron Microscopy Unit (MD1 #B1-01)

The MERLION 2026 Volume EM Workshop, jointly organised by Ultrastructural Bioimaging Unit (Institut Pasteur, France) and Electron Microscopy Unit (NUS School of Medicine), brings together the expertise from both institutions to showcase the advances and applications in volume EM.

Join us and

- Listen to talks from invited speakers from Singapore and France
- Attend practical demonstrations on sample preparation, ultramicrotomy for array tomography, EM imaging and data analysis, with state-of-the-art equipment from industry partners



SCAN ME

Limited seats!

SCAN TO REGISTER
For any enquiries:
medbx263@nus.edu.sg

SPONSORS RMC Boeckeler ConnectomX JEOL

MERLION 2026 Volume EM Workshop

NUS - Institut Pasteur France

23 to 26 Nov 2026

National University of Singapore

23 November (Monday)

	Venue: MD4 Level 2 Seminar room
8.30 - 9.00	Registration
9.00 - 9.30	**Introduction to volume EM: The challenges and triumphs of volume EM in a multi-user facility** *Speaker: Isabelle Guerin-Bonne, Microscopy Cluster, National University of Singapore*
9.30 - 10.00	**3D analysis of intraflagellar transport in Trypanosomes: Localization and train formation revealed by FIB-SEM** *Speaker: Adeline Mallet, Institut Pasteur France*
10.00 - 10.30	**Multimodal imaging uncovers a novel mechanism of epithelial apical lumen initiation** *Speaker: Alexander Ludwig, School of Biological Sciences, Nanyang Technological University*
10.30 - 11.00	Tea break
11.00 - 11.30	**Balloon inside balloon – biomechanical and structural study of expanding plant cells** *Speaker: Yuchen Long, Department of Biological Sciences, National University of Singapore*
11.30 - 12.00	**3D electron microscopy reveals the architecture and cellular impact of Trypanosoma brucei Infection in Tsetse Fly salivary glands** *Speaker: Justine Escard, Institut Pasteur France*
12.00 - 12.30	**3D electron microscopy characterization of ultrastructural alterations induced by Mic60 loss** *Speaker: Clémentine Vallée, Institut Pasteur France*
12.30 - 14.00	Group photo and lunch
14.00 - 14.30	**Vascular colonization by Neisseria analysed by LaserFIB Volume Electron Microscopy** *Speaker: Esthel Penard, Institut Pasteur France*
14.30 - 15.00	**Challenges of integrating light, X-ray, and 3D electron microscopy to resolve Legionella infection sites in Zebrafish larvae** *Speaker: Perrine Bomme, Institut Pasteur France*
15.00 - 15.30	Break and proceed to MD1
15.30 -16.30	Visit of the Microscopy Cluster, NUS Medicine (in groups)
16.30 - 17.00	Open discussion
17.30	Dinner (speakers and sponsors)

MERLION 2026 Volume EM Workshop

NUS - Institut Pasteur France

23 to 26 Nov 2026

National University of Singapore

	24 Nov Tuesday	25 Nov Wednesday	26 Nov Thursday
	Venue: MD1 Basement 1 (Electron Microscopy Unit)		Venue: MD1-06-03M Seminar Room
9.00 - 9.45	Talk 1 - From Sample Preparation to 3D Volume Imaging: A FIB-SEM Workflow for Biological Samples *Speaker: Anna Liew, JEOL Asia Pte Ltd*	Talk 1 - Introduction to Serial Block-face SEM for Volume Electron Microscopy *Speaker: Cheng Cheng, ConnectomX Ltd*	Talk 1 - Introduction to Data Analysis *Speaker: Richard de Mets, Microscopy Cluster, National University of Singapore*
9.45 - 10.30	Talk 2 - Setting Up for Success: Sample Preparation for Serial Ultramicrotomy *Speaker: Marianne Mai, RMC Boeckeler*	Talk 2 - Streamlining Serial Sectioning: Unlocking Efficiency with the ATUMtome and ASH2 *Speaker: Marianne Mai, RMC Boeckeler*	Talk 2 - Data Analysis *Speaker: Stuart Seale, ConnectomX Ltd*
10.30 - 11.00	Tea break	Tea break (sponsored by RMC Boeckeler)	Tea break (sponsored by ConnectomX Ltd)
11.00 - 12.30	Practical - Sample preparation for vEM (Embedding) Group 1 & 2	Practical A - Ultramicrotomy and imaging (Array Tomography) Group 1 & 2	Practical - Imaging/Image processing/Data analysis
12.30 -14.00	Lunch	Lunch (sponsored by RMC Boeckeler)	Lunch (sponsored by ConnectomX Ltd)
14.00 - 15.00	Practical A - Sample preparation for vEM (Block trimming and preparation for Array Tomography) Group 1 Practical B - Sample preparation for vEM (Block trimming and preparation for Serial Block Face) Group 2	Practical B - Ultramicrotomy and imaging (Serial Block Face) Group 1	Practical - Imaging/Image processing/Data analysis
15.00 - 15.30	Break		
15.30 - 16.30	Practical A - Sample preparation for vEM (Block trimming and preparation for Array Tomography) Group 2 Practical B - Sample preparation for vEM (Block trimming and preparation for Serial Block Face) Group 1	Practical B - Ultramicrotomy and imaging (Serial Block Face) Group 2	Closing and conclusion
16.30 - 17.00	Open discussion		
17.30		Closing Dinner (sponsored by JEOL)	