



5th NATIONAL WORKSHOP ON ELECTRON TOMOGRAPHY OF BIOLOGICAL SPECIMENS 4th-7th May 2026

Overview

Electron Tomography (ET) with 3D image reconstruction (RT & Cryo) has potential to investigate the macromolecular complexes in the context of the cell or tissue in native environments with atomic-scale resolution in their spatial relationships and interactions with cells or tissues. Cryo-ET is now rapidly developing a diagnostic and research tool that enables structural biologists to determine the structure of proteins in their native cellular environment to sub-nanometer resolution. The upcoming 4 days will explore the potential of cryo-ET in the biomedical, biological, and diagnostics fields.

Theme

Applications are invited for a four-day intensive Hands-on Workshop on aimed at providing theoretical, methodological, and practical training in Electron Tomography of Biological specimens. The workshop will cover the complete Cryo-ET workflow, including sample preparation, glow discharge, cryo-ultramicrotomy and/or cryo-focused ion beam (Cryo-FIB) milling, tilt-series data acquisition, and tomographic data processing.

Hands-on Workshop

- Fundamentals of Cryo-ET
- Sample Preparation for Cryo-ET of cells
- Plunge/High Pressure freezing of molecules/cells
- Plasma Cryo-FIB SEM 3D Imaging/Lamella Prep.
- Cryo-ET Data Acquisition on Talos S with DED
- Tomogram Generation by Imod
- Subtomogram Averaging and segmentation
- Cryo-electron microscopy of vitreous sections

WHO MAY ATTEND

- JRF, PhD, RA & PDF
- Faculty & Scientists
- Industry Professionals



Limited Seats: 12 only

Participation will be based on merit and relevance to

Cryo Electron Tomography

Last date: 31st March 2026

Tentative Speakers

- Dr Partha Ghosal, DMRL, Hyderabad
- Dr. Tofayel Ahmed, SINP, Kolkata
- Dr. D Ghosal, University of Melbourne
- Dr. Atanu Basu, ICMR-NIV, Pune
- Dr. Dilip Kumar, Ashoka University, Haryana
- Dr Vidya M Prasad, IISc., Bengaluru
- Dr. Vineet Choudhary, AIIMS New Delhi
- Dr. Udippan Das, AIIMS New Delhi
- A Harikrishna, CCMB Hyderabad
- Dr. Saikat Chakraborty, University of Oxford
- Other Eminent speakers (TBA)

Course Conveners



Dr. S C Yadav
Course Coordinator



Dr. Prabhakar Singh
Organizing Secretary



Dr. Vijay Kr Singh
Organizing member

National Advisory Committee

- Dr. Garima Gupta, DBT, Govt. of India
- Prof. Manidipa Banerjee, KSBS, IIT Delhi
- Prof. Suneel Kateriya, SBT, JNU, Delhi
- Dr. Gopaljee Jha, NIPGR, New Delhi
- Dr. C. V. Srikanth, RCB, Faridabad
- Dr. N K Prasanna, CSIR-NIScPR, Delhi



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Participation fees

	EMSI Member	EMSI Non-Member*
❖ Student (PhD, JRF, PDF, RA, Project Scientist)	7500+GST	9000 +GST
❖ Faculty/Scientist	10000+GST	11500+GST

*Additional 1500+GST(18%) is fee for EMSI Life Membership

About Electron Microscope Facility

The Electron Microscopy Facility (EMF) was established in the year 1971 in the Department of Anatomy, All India Institute of Medical Science (AIIMS), serving as a nodal center for excellence in biological electron microscopy for disease diagnostics/ ultrastructural imaging to help more than 2500 research laboratories (registered with EMF) across India to foster their research for electron microscopy imaging. We have regularly providing training for scientific investigators and technicians for biological electron microscopy since 1986.



4th - 7th May 2025



ELECTRON MICROSCOPY FACILITY
DEPARTMENT OF ANATOMY (-1) BASEMENT
CONVERGENCE BLOCK AIIMS, NEW DELHI

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