



# 1st International Symposium on Cryo-Electron Microscopy

@ IIT Madras on 9th & 10th August 2024

Organised by

**SERB National Facility for  
Cryo-Electron Microscopy**

## PROGRAM SCHEDULE

### Partner Organisations



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**VIT**  
Vellore Institute of Technology  
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### Sponsors



**ThermoFisher**  
SCIENTIFIC

	Time	Event
<b>Day 01 - 09 August 2024</b>		
<b>Registration and Facility Tour</b>	8:00 - 08:45	Registration @ ICSR, IIT Madras
	08:45 - 08:55	Assembling @ Cryo-EM Center
	09:00	Photograph followed by entry of delegates to the Cryo-EM Center (In the presence of Director, IIT Madras; SERB IRHPA committee members)
	09:00 - 09:15	Tour of the Facility @ Cryo-EM Center
	09:15 - 09:30	Assembling @ ICSR @ TT Jagannathan Auditorium
	09:30 – 10:00 - Inaugural Function @ TT Jagannathan Auditorium	
	09:30- 09:35	Welcome address - T. Pradeep
	09:35 - 09:37	Video - Making of Cryo-EM facility
	09:37 - 09:42	Director's address - V Kamakoti
	09:42 - 09:44	Felicitation - Jayant Udgaonkar, IISER Pune
	09:44- 09:46	Felicitation - Sanjay Kumar, HOD Chemistry
	09:46 - 09:48	Felicitation - R Ravi Krishna, HOD Chemical Engineering
	09:48 - 09:50	Felicitation - Sanjib Senapati, HOD Biotechnology
	09:50 - 09:52	Felicitation - Chandrabhas Narayana, RGCB
	09:52 - 09:54	Felicitation - Sreekumaran Nair, MRF
	09:54 - 09:56	Felicitation - Swaminathan S, SASTA
	09:56 - 09:58	Felicitation - Vijayaraghavan R, VIT
	09:58 - 10:00	Vote of Thanks - Rajnish Kumar
10:00 – 10:30	High Tea @ ICSR - TT Jagannathan Auditorium	
<b>Morning Session</b>	<b>Session 01 - Chair: Jayant Udgaonkar, IISER Pune</b>	
	10:30 - 11:15	Plenary Lecture I - 01 Wah Chiu, Stanford University <i>Theme: Recent Advances in Cryogenic Electron Microscopy and Tomography</i>
	11:15 - 11:45	Invited Lecture 02 Manidipa Banerjee, IIT Delhi <i>Theme: Reconstructing dynamic processes in the virus life cycle using cryoelectron microscopy</i>
	11:45 - 12:15	Invited Lecture 03 Saikat Chowdhury, CSIR-CCMB <i>Theme: Overcoming Preferred Orientation in cryo-EM: Insights into Arp2/3 complex Mediated Actin Nucleation</i>

Afternoon Session	12:15 - 12:45	Invited Lecture 04 Appu Kumar Singh, IIT Kanpur <i>Theme: Structural studies on human orphan receptors</i>
	12:45 - 01:15	Invited Lecture 05 Sandip Kaledhonkar, IIT Bombay <i>Theme: Cryo-EM structure of the Sacbrood virus at 3.5 Å</i>
	01:15 - 02:30	Lunch
	<b>Session 02 - Chair: Amit Sharma, ICGEB</b>	
	02:30 - 03:00	Invited Lecture 06 Prem S. Kaushal, RCB <i>Theme: Cryo-EM studies of ribosomes from pathogenic protozoa Entamoeba histolytica, reveal unique features of its architecture</i>
	03:00 - 03:30	Invited Lecture 07 Hema Chandra Kotamarthi, IIT Madras Theme: Knotted proteins: A tale to untangle
	03:30 - 04:00	Invited Lecture 08 Oliver Raschdorf, Thermo Fisher Scientific <i>Theme: Optimizing automated cryo-TEM data collection strategies with energy filter and direct electron detector</i>
04:00 - 04:15	Tea Break	
Evening Session	<b>Session 03 - Chair: Athi Naganathan, IIT Madras</b>	
	04:15 - 05:00	Plenary Lecture II - 09 Maia Azubel, Stanford University <i>Theme: Gold Nanoparticles in the Era of the Resolution Revolution</i>
	05:00 - 05:30	Invited Lecture 10 Sucharita Bose, inSTEM <i>Theme: Evolution of Single Particle CryoEM- from Blobs to True Atomic Resolution</i>
	05:30: 05:40	Group Photograph
	06:15	Assembling @ ICSR Entrance - Transportation for Dinner
	07:00 - 09:30	Dinner @ HolidayInn

## Day 02 - 10 August 2024

<b>Morning Session</b>	<b>Session 04 - Chair: Rajnish Kumar, IIT Madras</b>	
	09:00 – 09:45	Plenary Lecture III - 11 Brent Nannenga, Arizona State University <i>Theme: Development and Applications of Microcrystal Electron Diffraction (MicroED)</i>
	09:45 – 10:15	Invited Lecture 12 N.Manoj, IIT Madras <i>Theme: Unraveling the structural basis of reaction specificity in PLP-dependent decarboxylases</i>
	10:15 - 10:30	High Tea Break
<b>Mid-Morning Session</b>	<b>Session 05 - Chair: Dileep Vasudevan, RGCB</b>	
	10:30 - 11:00	Invited Lecture 13 Smarajit Polley, Bose Institute <i>Theme: A tale of two kinases: Unraveling the mechanistic differences between IKK1 and IKK2 using CryoEM and other tools</i>
	11:00 - 11:30	Invited Lecture 14 Vidya Mangala Prasad, IISc <i>Theme: Cryo-EM analysis of epitope targeting by broadly neutralizing antibodies</i>
	11:30 - 12:00	Invited Lecture 15 Hussain Bhukya, IISER Tirupati <i>Theme: Signal induced antibiotic biosynthesis in Streptomyces</i>
<b>Afternoon Session</b>	12:00 - 12:30	Invited Lecture 16 Mamata Bangera, Birkbeck University of London <i>Theme: Tracing the cytoskeletal blueprint in vitro</i>
	12:30 - 01:00	Invited Lecture 08 Xin Nie, Thermo Fisher Scientific <i>Theme: Pushing the Boundaries in Volume EM &amp; Cryo-Tomography</i>
	01:00 - 01:15	Closing Session
	01:15 - 02:30	Lunch