

THE PROF. M. VIJAYAN SCHOOL OF MACROMOLECULAR X-RAY CRYSTALLOGRAPHY AND PROTEIN STRUCTURE PREDICTION

The BRIC-National Institute of Immunology (BRIC-NII) presents a mini-symposium and a workshop on "Macromolecular X-Ray Crystallography and Protein Structure Prediction." Join us for an immersive 3-day event featuring talks from leading experts in the field and a workshop exploring the theoretical as well as practical aspects in macromolecular X-ray crystallography and structure prediction.

Highlights

- Cutting-edge insights into structural biology.
- Opportunities to network with professionals and researchers.
- Interactive sessions designed for skill enhancement.

 **20-22 JAN 2025**

 **BRIC-NII**

ORGANIZERS

Dr Bichitra K Biswal, NII
Dr Narendra Kumar, NII
Dr K. Vengadesan, RCB

SPEAKERS



PROF. MRN MURTHY

Distinguished Professor & Astrazeneca Chair
IBAB, Bengaluru



PROF. MADHUMALAR ARUMUGAM

UGC-FRP Assistant Professor
Jamia Milia Islamia Central University, New
Delhi



PROF. SHEKHAR MANDE

Distinguished Professor
Bioinformatics Centre, Savitribai Phule Pune
University, Pune



PROF. DINAKAR SALUNKE

Arturo Falaschi Emeritus Scientist
ICGEB, New Delhi



PROF. TP SINGH

Distinguished SERB Fellow
AIIMS, New Delhi



PROF. VINOTHKUMAR K. RAGUNATH

Faculty
NCBS, Bengaluru



PROF. MANIDIPA BANERJEE

Faculty
IIT-Delhi, New Delhi



DR. DEBASISA MOHANTY

Director
BRIC-NII, New Delhi

SCHEDULE

SYMPOSIUM | 20 JANUARY 2025

09:30 AM – 10:00 AM	Registrations
10:00 AM – 10:30 AM	Inauguration and Welcome address
10:30 AM – 11:30 AM	The rise and fall (?) of X-ray crystallography Prof. MRN Murthy
11:30 AM – 11:45 AM	Tea Break
11:45 AM – 12:30 PM	Structure-guided identification of protein function Prof. Dinakar Salunke
12:30 PM – 01:15 PM	How atomic view has enhanced our understanding of biology Prof. Shekhar Mande
01:15 PM – 02:00 PM	Lunch
02:00 PM – 02:45 PM	Introducing a tag-based approach to new drug discovery Prof. T. P. Singh
02:45 PM – 03:30 PM	Electron cryomicroscopy of macromolecules Prof. Vinothkumar K. Raghunath
03:30 PM – 03:45 PM	Tea Break
03:45 PM – 04:30 PM	CryoEM provides snapshots of dynamic biological processes Prof. Manidipa Banerjee
04:30 PM – 05:15 PM	Predicting protein structure dynamics and its applications Prof. Madhumalar Arumugam
05:15 PM – 06:00 PM	Recent advances in AI/ML-based methods for protein structure prediction and protein design Dr. Debasisa Mohanty

SCHEDULE

WORKSHOP | 21 JANUARY 2025

11:00 AM – 01:00 PM **Understanding crystal symmetry**
Dr. B. K. Biswal

01:00 PM – 02:00 PM **Lunch**

02:00 PM – 04:00 PM **Principles of protein crystallization**
Prof. K. Vengadesan

WORKSHOP | 22 JANUARY 2025

11:00 AM – 01:00 PM **Crystal mounting, data collection, structure solution and structure analysis**
Dr. G. Senthilkumar and Dr. Ravikant Pal, NII

01:00 PM – 02:00 PM **Lunch**

02:00 PM – 04:00 PM **Hands-On session for protein structure prediction by AlphaFold3 and ESMFold**
Dr Sanjeet Mahtha and Mr Sureshkumar V, NII

04:00 PM – 05:00 PM **High-Tea**