Department of Medical Sciences and Technology
Indian Institute of Technology Madras

INVITATION

PHARMACEUTICAL INDUSTRY MEET

Partnering for Life

DMST, IIT Madras invites leaders from the pharmaceutical and biotechnology industries to explore opportunities for facility access, joint research and long-term partnerships in drug discovery and biomedical innovation.



DATE
1 December 2026

TIME
9:30 am – 12:30 pm

VENUE
Department of Medical Sciences and Technology
NAC II building, fifth floor
IIT Madras, Chennai

Contact : Prof. R. Krishna Kumar, Institute Professor
Email: rkkumar@iitm.ac.in Phone: 9840225856

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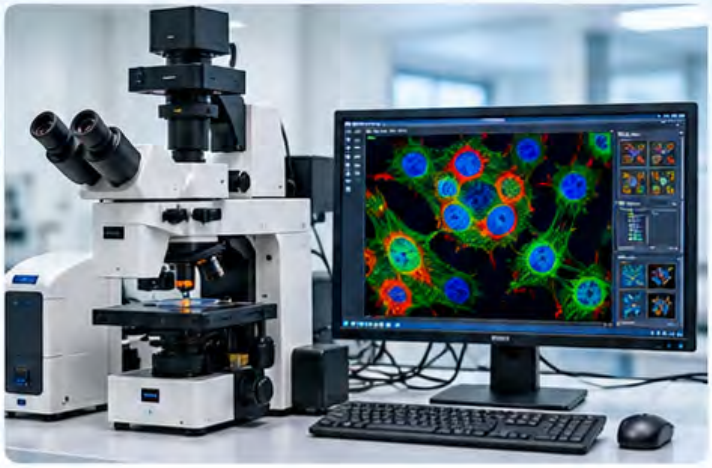
1 Discover and Screen

Advanced platforms for target identification, hit discovery and mechanistic evaluation.



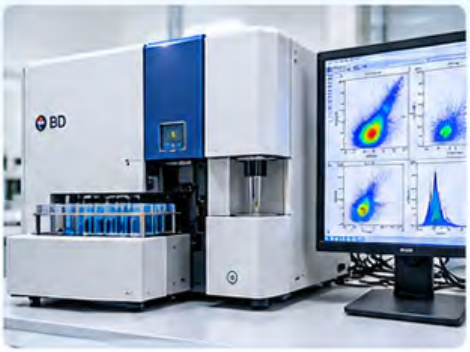
High-throughput Screening

Automated screening of compound libraries in relevant cell and organoid models.



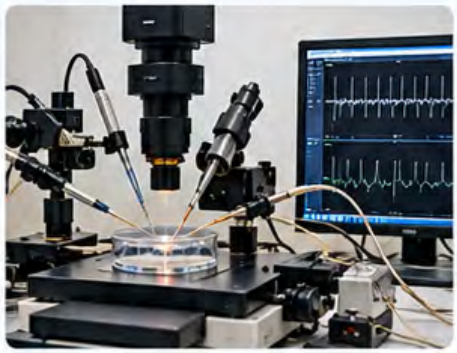
Cellular Imaging and Analysis

High-content imaging to quantify cellular responses, mechanisms and phenotypes.



Flow Cytometry

Multiparametric analysis of immune cells, stem cells and disease models.



Electrophysiology

Characterise ion channels, receptors and cellular signalling with high-resolution functional assays.



Molecular and Biomarker Analysis

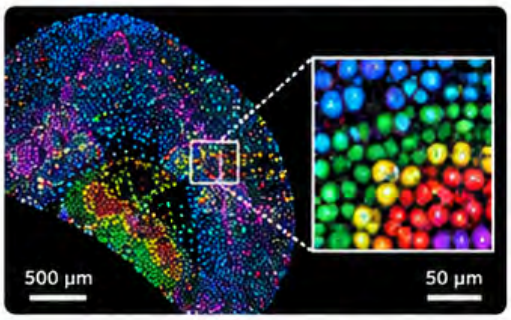
Proteomics, metabolomics and biomarker quantification to link drug action to molecular pathways.

Validated Assays | **Quantitative Readouts** | **Mechanistic Insights**

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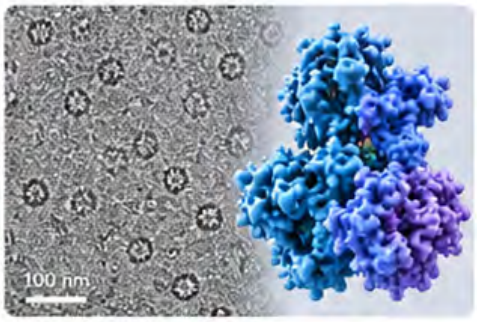
2 Understand Biology in Context

Integrated multi-scale platforms to study cell states, microenvironments and disease mechanisms.



Single-cell and Spatial Omics

Map cellular heterogeneity and microenvironments using single-cell transcriptomics and spatial omics.



Structural Biology and Cryo-EM Preparation

Sample preparation and imaging for structural studies of proteins, complexes and drug targets.

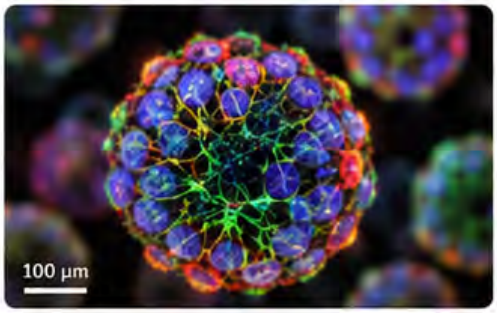


3D Bioprinting and Organoid Models

Engineered tissues and organoid models for drug testing, regenerative research and disease modelling.

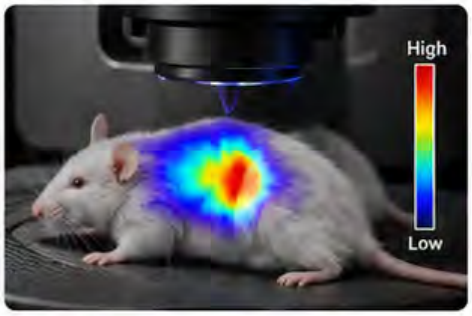
3 Evaluate and Translate

Physiologically relevant models and advanced imaging to assess drug efficacy, safety and therapeutic potential.



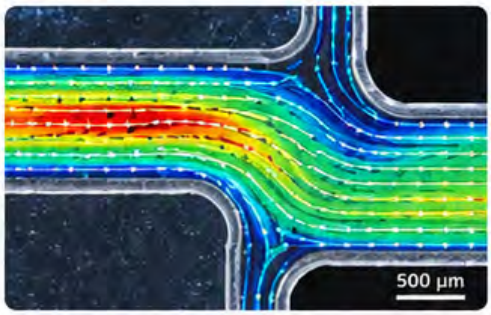
Disease-relevant Cell and Organoid Models

Human cell lines, primary cells and organoids to model disease and test therapeutics.



In Vivo Imaging and Small Animal Studies

Non-invasive imaging to evaluate drug efficacy, biodistribution and disease progression.



Fluid Mechanics and Particle Image Velocimetry

Quantify flow, shear and transport in vascular and organ-on-chip models using PIV.

Physiologically Relevant Models

Efficacy and Safety Evaluation

Toward Therapeutic Impact

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