

SYMPOSIUM

CLINICIAN'S ROADMAP

TO GENOMICS AND TRANSCRIPTOMICS RESEARCH

From Clinical Question to Genomic Insight



29th AND 30th
MAY, 2026



VENUE

JPNA Trauma Centre.
AIIMS, NEW DELHI



ORGANIZING COMMITTEE



Dr. Arulselvi Subramanian
Professor & Head, Division of
Aama Laboratory Medicine

Dr. Deepak Agrawal
Professor, Department of
Neurosurgery

Dr. Venencia Albert
Scientist, Department of
Laboratory Medicine

CHAIRPERSON

CO-CHAIRPERSON

ORGANIZING SECRETARY

ORGANIZING TEAM

Vinay Beniwal
(Treasurer
Dept. Neurosurgery)

Dr. Anand Kumar
(Dept. Lab Medicine)

Pooja Thakur
(Dept. Lab Medicine)

Navneet kaur
(Dept. Lab Medicine)

ABOUT THE WORKSHOP

The workshop is designed to introduce clinicians, researchers, and students to practical applications of omics technologies in healthcare. Through expert talks, case-based discussions, and translational research insights, the workshop aims to bridge clinical medicine with modern genomic and transcriptomic approaches for precision medicine and interdisciplinary research.

SCAN TO REGISTER

Click to Register



Registration Google Form

<https://forms.gle/ZME8nGe5Wxf5DN7b8>

WHO SHOULD ATTEND?



Clinicians & Physicians



Researchers & Scientists



Laboratory Professionals



Students & Fellows

Register Now!

Limited Seats: 50

Join leading experts and Clinicians to navigate the path from

CLINICAL QUESTION to GENOMIC INSIGHT

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Day 1 | 29th May 2026

Time	Session Title	Focus	Speaker
08:30 – 09:00	Registration	–	–
09:00 – 09:20	Opening Remarks	Welcome Address	Organising Committee
09:20 – 09:30	Pre-Knowledge Quiz	Baseline Assessment	–
SESSION 1 The Clinical Roadmap: What Are We Measuring?			
09:30 – 10:05	DNA, RNA, and Protein: The Multi-Omics Decision Tree	Clinico-genomics of pathogens, host response, and single-cell multi-omics	Dr. Rajesh Pandey (CSIR-IGIB)
10:05 – 10:50	Choosing Between Panels, Exome, and Genome: Coverage, Depth, and Clinical Study Design	Cost, sequencing depth, coverage strategy, cohort design, and analytical power	Dr. Awadhesh Pandit, NCBS, Bangalore
10:50 – 11:00	Quick Quiz	Interactive Discussion	–
11:00 – 11:20	Tea Break	–	–
SESSION 2 Sequencing Technologies and Approaches			
11:20 – 11:55	RNA-Seq Hierarchy: Bulk, Single-Cell, and Spatial	When added resolution changes outcomes	Dr. Sourav Banerjee, NBRC,
11:55 – 12:30	Beyond Short Reads: When Do You Need Long-Read Sequencing?	Structural variants, isoforms, and complex genomic regions	TBD
12:30 – 13:05	Sponsor Industry Talk		PREMAS Life Sciences
13:05 – 13:45	Lunch Break	–	–
SESSION 3 From Sample to Sequencer			
13:45 – 14:20	The Single-Cell Revolution in Medicine: What 10x Genomics and Cellular Resolution Mean for Clinical Research	Moving beyond bulk tissue data to identify distinct cellular populations and disease drivers	Dr. Nimesh Gupta, NII
14:20 – 14:55	From Sample to Sequence: How Platform and Library Choices Impact Clinical Accuracy	Platform selection, library preparation strategies, sequencing bias, and downstream clinical interpretation	Kumar Sankaran, Leucine Rich Bio (Online)
14:55 – 15:25	Sponsor Industry Talk		
15:25 – 15:50	Case Walkthrough: Interpreting a Real Omics Dataset	Translating raw datasets into biological and clinical insights	Dr. Ritu Gupta AIIMS, New Delhi
15:50 – 16:00	Post-CME Quiz and Q&A	Wrap-up Discussion	Faculty Panel

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Day 2 | 30th May 2026

Time	Session Title	Focus	Speaker
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SESSION 4 | Demystifying the Bioinformatics Report

09:00 – 09:35	Machine Learning Aided Analysis of Genome Sequencing Data: From Raw Reads to Actionable Insight	Alignment, variant calling, and reference databases	Dr. Dinesh Gupta, ICGEB
09:35 – 10:10	From Statistical Significance to Biological Meaning	Pathway analysis, biological interpretation, and avoiding false signals	Dr. Jatin Shrinet, Institut Curie, Paris, France
10:10 – 10:45	AI-Driven Data Translation	Single-cell algorithms, predictive ML models, resolving tissue noise	TBD
10:45 – 10:55	Post-CME Quiz and Q&A	Interactive Discussion	—
10:55 – 11:10	Tea Break	—	—

SESSION 5 | Research Design & Translation

11:10 – 11:45	Framing the Question: From Clinical Problem to Omics Study	Cohorts, endpoints, hypothesis framing	Dr. Veena S. Patil, NII
11:45 – 12:20	Validation and Closing the Loop: From Gene Lists to Biomarkers	Reproducibility and targeted validation assays	Dr. Samrat Chatterjee, THSTI
12:20 – 12:55	Genomics in Practice: Consent, Data Privacy, and Incidental Findings	Ethics, reporting, ownership, and governance	Dr. Harpreet Singh, ICMR, New Delhi
12:55 – 13:30	Panel Discussion: Building Your Genomics Research Ecosystem	Collaborations, infrastructure, funding pathways	All Faculty
13:30	Lunch	—	—