Harnessing Artificial Intelligence for Multi-Omics Data Integration and Analysis
Organised by : Department of Biotechnology and Research
Sir Ganga Ram Hospital

Sl. No.	Name	Topic	Remarks	Time
Day-1 **(15-10-2025)**				
Workshop Registration				10:00 - 10:30
01	**Inauguration**			10:30 - 11:00
02	**Introduction to Workshop**			11:00 - 11:30
Tea Break				11:30 - 12:00
Session 1: AI-Powered Genomics: From Evolutionary Insights to Disease Modeling				
03	Prof. Gajendra P. S. Raghava	"Designing of Therapeutic Proteins using Advanced Machine Learning Techniques"	Talk	12:00 - 12:30
04	Dr. Rajesh Pandey	Integrative Genomics and AI for Disease Modeling	Talk	12:30 - 01:00
Lunch				1:00 - 2:00
Session 2: AI-Powered Precision Genomics: From Single Cells to Personalized Medicine				
05	Dr. Debarka Sengupta	AI in Single-Cell Genomics	Talk	2:00 - 2:30
06	Dr. Vinod Scaria	Genomics & Precision Medicine	Talk	2:30 - 3:00
Tea Break				3:00 - 3:30
Hands-on Session-01				
07		TQ Clinical diagnostics & Dry Demo	Hands-on	3:30 - 5:30
Day-2 **(16-10-2025)**				
Session 3: Metabolic Intelligence: Machine Learning and Network Biology in Metabolomics				
08	Dr. Binay R Panda	Metabolomics & ML Applications	Talk	10:00 - 10:30
09	Dr. Kathik Raman	Metabolic Modelling & Network Biology	Talk	10:30 - 11:00
Session 4: AI-Driven Multi-Omics: From Data Integration to Therapeutic Innovation				
10	Dr. Ravi Sirdeshmukh	Integrating AI with Genomics and Proteomics for Data Analysis	Talk	11:00 - 11:30
Tea Break				11:30 - 12:00

11	Dr. Bhabatosh Das	Live Biotherapeutics design using genomics and proteomics insights	Talk	12:00 - 12:30
12	Dr. Debasis Dash	Computational Biology, Proteomics and AI in Healthcare	Talk	12:30 - 1:00
Lunch				1:00 - 2:00
Session 5: AI for Health: From Computational Drug Discovery to Digital Healthcare Innovation				
13	Dr. Andrew M. Lynn	AI-Driven Bioinformatics: Integrative Approaches in Computational Drug Discovery	Talk	2:00 - 2:30
14	Dr. Harpreet Singh	Digital Health for equitable, affordable and safe healthcare	Talk	2:30 - 3:00
Tea Break				3:00 - 3:30
Hands-on Session-02				
15	Dr. Saravanan Kumar	Advancements in Mass Spectrometry-From Discovery to Clinics & Dry Demo on metabolomics and Proteomics	Hands-on	3:30-5:30
Gala/ Interactive Dinner at India International Centre				7:30 Onwards
Day-3 (17-10-2025)				
Session 6: Proteomics Meets AI: Advancing Precision Disease Detection				
14	Dr. Sanjeeva Srivastava	Proteomics & AI/ML-Driven Disease detection	Talk	10:00 - 10:30
Session 7: AI in Infectious Disease: From Viral Diagnostics to Antiviral Drug Discovery				
15	Dr. Arvind Kumar	AI in Infectious Disease Diagnostics	Talk	10:30 - 11:00
16	Dr. Vivek Dhar Dwivedi	Machine Learning-Driven Bioinformatics for Viral Data Analysis and Antiviral Drug Discovery	Talk	11:00 - 11:30
Tea Break				11:30 - 12:00
Session 8: AI-Enabled Insights: From Cellular Chemical Biology to Non-Invasive Thermal Diagnostics				
17	Dr. Gaurav Ahuja	AI-Driven Chemical Biology: Decoding Cellular Responses	Talk	12:00 - 12:30

18	Dr. Geeta Manjunath	AI-Powered Thermal Imaging for Non-Invasive Disease Detection	Talk	12:30 - 1:00
Lunch				1:00 - 2:00
Hands-on Session-03				
19	Team ILS Gurugram	Advanced sequencing based omics workflow	Hands-on	2:00 - 3:00
20	Team ILS Gurugram	Multiomics in clinics & Research dry demo of NGS Platform	Hands-on	3:00 - 4:00
Tea Break				4:00 - 4:15
21	Dr. Rintu Kutum	Reproducible Computational Workflow for Multiomics Integration from raw data to algorithms for biomarker discovery in biomedical research	Hands-on	4:15 - 5:15
Valedictory Session				5:15 - 5:30