

# Genomics India

12 - 14 August, 2025  
JN Tata Auditorium, IISc, Bengaluru

Theme  
The Indian Genomics Journey

## PROGRAM SCHEDULE

In association with



Organized By



Co-Organized By







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JN Tata Auditorium,  
IISc, Bengaluru

## India's Premier Genomics Conference

Join us at GenomicsIndia Conference, GIC2025 as we unlock genomics potential for a more sustainable future. The three-day genomics conference is set to be a dynamic gathering, uniting key players from diverse sectors, including industry, academia, and research. This event is designed to serve as a knowledge-sharing hub, offering a platform for insightful discussions on the latest trends and breakthroughs in the field of genomics.

Throughout the conference, attendees can anticipate a deep dive into cutting-edge research that showcases the forefront of genomics technologies. The primary focus will be on disseminating groundbreaking discoveries and innovations in this rapidly evolving domain.

GIC 2025 promises an unparalleled opportunity for engagement & networking. Attendees will have the chance to connect with industry luminaries, visionaries from the academic sphere, as well as representatives from both startups & established profit and non-profit organizations including Mincorns, Soonicorn, Unicorns, Decacorns & Hectocorns within the biotech sector.

**Indian Institute of Science, Genotypic Technology, Dhitiomics Technologies and QTLomics Technologies looks forward to welcoming you to this Gateway of "The Indian Genomics Journey"**



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Theme  
**The Indian Genomics Journey**

# 12<sup>th</sup> AUGUST PROGRAM



## Hall A

NGS Analysis & Genome Informatics Program  
8:30 AM - 5:30 PM



## Hall B -Mini Symposium

**Biology in AI Era - A paradigm shift**

Upskilling researcher Investigators for the AI World  
2:00 PM - 5:00 PM



## Hall C - Mini Symposium

Think Tank: Workshops by Genomics & Allied  
Technology Firms (Industry-led sessions)  
2:00 PM - 5:00 PM



GIC 2025 - NGS PROGRAM (HALL A)		
12 <sup>TH</sup> AUG	TOPIC	SPEAKER
8:00 AM	Registration - collect the badges at registration desk	
9:00 AM-9:30AM	Next-Generation Sequencing Analysis in the AI world	Dr Raja Mugasimangalam
9:30 - 10:30 AM	Basics of NGS Data Analysis and NGS data formats	Dr Meenal Vyas
10:30 - 11:00 AM	Tea Break	
11:00 - 12:00 PM	Basics of NGS Data Analysis Denovo assembly and Gene prediction	Mr Nihar Bachan Das
12:00 - 12:30 PM	Commander.ai NGS analysis using agentic ai	Mr Vicky Dahiya
12:30 - 1:15 PM	Insights into Transcriptome and Small RNA data analysis	Ms Garima Sanoria
1.15 - 2:00 PM	Lunch	
2:00 - 2:30 PM	Single cell and direct RNA	Ms Garima Sanoria
2:30- 3:00 PM	Human genome variation from long reads	Mr Nihar Bachan Das
3:00 - 3:30 PM	Epigenetics	Dr Sudha
3:30 - 4:00 PM	NGS For Biopharma and Vaccine Industry	Dr Amol Date
4:00 - 4:30 PM	Insights Into The Microbiome Analysis Using NGS Data	Dr Meenal Vyas
4:30 - 4:45 PM	Tech Talk: Agilent	
4:45 - 5:00 PM	Quiz and Awards	
5:00 - 5:30 PM	High Tea	
5:30 PM	INAUGURATION IN MAIN HALL	
	<p><b>Welcome address: Genotypic Technology and Indian Institute of Science</b></p> <p><b>Inaugural Dignitaries:</b></p> <ul style="list-style-type: none"><li>Prof. G. Rangarajan - Director, IISc</li><li>Prof Samir Brahmachari, Founder Director CSIR - IGIB</li><li>Prof Debnath Pal, CDS, IISc</li></ul> <p><b>Patron's Address:</b> Prof Samir Brahmachari, Founder Director CSIR - IGIB</p> <p><b>GIC Evolution:</b> Dr Raja Mugasimangalam, Founder &amp; CEO Genotypic Technology</p> <p><b>Keynote Address by Chief Guest:</b> Dr Rajesh S Gokhale, Secretary DBT</p> <p><b>Vote of thanks:</b> Dr Sudha Rao, Co Founder and Executive Director, Genotypic Technology</p>	

GIC 2025: HALL B: MINI SYMPOSIUM: BIOLOGY IN AI ERA - A PARADIGM SHIFT Upskilling Research Scientists for the AI World Dr Raja Mugasimangalam, Dr Debnath Pal		
12 <sup>TH</sup> AUG	TOPIC	SPEAKER
2:00 - 2:30 PM	Introduction to AI History and the future. The paradigm shift	Dr Raja Mugasimangalam, <i>Genotypic Technology</i>
2:30 - 3:00 PM	Agentic Model for data analysis (AI running prog on your computer)	Rahul, <i>Genotypic Technology</i>
3:00 - 3:15 PM	From Pubmed search to Phd Thesis, AI tools and ethics, the changing senario's AI tools in scientific writing and publishing	Ashwin B.R, Kumar, <i>Genotypic Technology</i>
3:15 - 4:00 PM	Democrticizing AI: Own you AI 'mini server RAG models for data mining scientific literature	Dr Debnath Pal, <i>IISc</i> Vicky Amar Daiya, <i>Genotypic Technology</i>
4:00 - 4:30 PM	Machine requirement for usage of AI	Dr Debnath Pal, <i>IISc</i>
4:30 - 5:00 PM	Panel session on discovery/invention/innovation/testing/regulatory - publish, Patent/marketing and sales/grant applications	Dr Debnath Pal, <i>IISc</i> Shekar Suman, <i>Biotechnika</i> Dr Nihar Desai
GIC 2025: HALL C THINK TANK: WORKSHOPS BY GENOMICS & ALLIED TECHNOLOGY FIRMS (INDUSTRY-LED SESSIONS) Dr Karthik, Aiyaz		
12 <sup>TH</sup> AUG	TOPIC	SPEAKER
2:00 - 3:30 PM	10x Genomics	
3:30 - 4:30 PM	Spinco	
4:30 - 5:00 PM	BD Life Sciences	
5:30 PM	INAUGURATION IN MAIN HALL	
	<b>Welcome address: Genotypic Technology and Indian Institute of Science</b>  <b>Inaugural Dignitaries:</b> <ul style="list-style-type: none"><li>Prof. G. Rangarajan - Director, IISc</li><li>Prof Samir Brahmachari, Founder Director CSIR - IGIB</li><li>Prof Debnath Pal, CDS, IISc</li></ul> <b>Patron's Address:</b> Prof Samir Brahmachari, Founder Director CSIR - IGIB <b>GIC Evolution:</b> Dr Raja Mugasimangalam, Founder & CEO Genotypic Technology <b>Keynote Address by Chief Guest:</b> Dr Rajesh S Gokhale, Secretary DBT <b>Vote of thanks:</b> Dr Sudha Rao, Co Founder and Executive Director, Genotypic Technology	





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# 13<sup>th</sup> AUGUST PROGRAM

→ Main Hall  
9:00 AM - 7:00 PM

→ Hall A  
11:00 AM - 7:00 PM

13 <sup>TH</sup> AUGUST	MAIN HALL	HALL A
8:00 AM	Registrations	
9:00 - 10:30 AM	Session 1- GenomeIndia Project	XXXXXXXXXXXX
	Chair: Prof Samir K Brahmachari Founder Director CSIR - IGIB Former Director General CSIR	
	GenomeIndia Project: A population genomic endeavor for public health Dr K Thangaraj, CSIR - CCMB	
	Whole Genome Sequencing Enables Discovery of Population-Specific Disease Susceptibilities Dr Bratati Kahali, CBR - IISc	
	Understanding the genetic architecture of non-syndromic autism spectrum disorder in India Dr Harsh Sheth, FRIGE Institute of Human Genetics	
	Enabling the responsible sharing of Biological Data: Indian Framework Dr Richi Mahajan, Department of Biotechnology	
10:30 - 10:50 AM	Tech Talk 1: Oxford Nanopore Technologies Clinical applications of ONT long read sequencing Dr Ahmad Tayoun, Al Jalila Children Hospital, Part of Dubai Health Corporation, Dubai UAE	
10:50 - 11:20 AM	Tea Break & Networking	
11:20 – 1:00 PM	Session 2 - Genomeinformatics - Insights into its database and applications	Session 3 - Microbial & Bacterial Genomics (MTB AMR, Bioremediation), Fungal Genomics (Pathogens & Beneficial)
	Chair: Dr Chirag Jain, IISc	Chair: Dr Asif Mohammed - ICGEB
	GenomeIndia: From Population Diversity to Disease Burden in Mainland India Dr Chandrika Bhattacharyya, BRIC - NIBMG	Genomics in TB Diagnostics and Transmission Dr SivaKumar, NIRT Chennai
	Static Snapshots vs. Dynamic Landscapes: Rethinking RNA and Protein Function in the Genomic Era Dr Debnath Pal, IISc	From soil to society – evolutionary dynamics and antimicrobial resistance of enteric bacteria in the environment Dr Niyaz Ahmed, UoH
	GenomeKlinik- A portal with Web-GMSECT for Structural Variation Extraction & Annotation Dr Abhishek, Abioteqnet	Sequence, Detect , Defend: Rewriting the Playbook of Infectious Disease Management Dr Sandeep Reddy - MSR Hospital
	From Static Knowledge Graphs to Cognitive Biointelligence: Enabling Dynamic, Context-Aware Discovery in Genomics and Precision Medicine Dr Prashanth S.R, EQ.ai	Dynamic 3D interactions, replication timing and repressive marks of heterochromatic domains ensure cell cycle progression and genome stability in Cryptococcus neoformans Dr Kaustuv Sanyal, Bose Institute
Exploring the Anthropogenic Footprints on the Antibiotic Resistome Diversity in Mangrove Ecosystems of India Dr Ranjith Kumavath - Pondicherry University		
1:00 – 1:15 PM	Tech Talk 2 - 10X genomics New Insights in Single Cell and Spatial Exploration Dr. Brett Kennedy - Market Development Manager	Tech Talk 3: New England Biolabs Next-Gen Epigenomics: Unlocking DNA Methylation with Enzymatic Methylation Dr. Selva Ramasubramanian - Senior Field Application Scientist
1:15 – 2:00 PM	Lunch + Poster & Networking	

13 <sup>TH</sup> AUGUST	MAIN HALL	HALL A
2:00 – 3:45 PM	Session - 4 Wellness and Longetivity Genomics	Session - 5 Multiomics session
	Chair: Dr Royanna Singh - BHU	Chair: Dr Dharmalingam - AMRF
	Charting India’s Genetic and Phenotypic Variability: The Phenome India Initiative Dr Shantanu Sengupta, CSIR - IGIB	Structure-guided medical genomics Dr Lipi Thukral, CSIR - IGIB
	An Ayurgenomics based approach to the Missing Link in Rare Disease Classification Dr Mithali Mukherjee, IIT Jodhpur	Dr Debasis Dash, DBT - ILS
	Integrating Omics & AI for Ayurveda 3.0 Dr Bala Pesala, Ayur.ai	Dr Nagasuma Chandra - IISc
	Climate Change and Epigenome: Unravelling Impacts on Maternal-Fetal Health and Longevity Dr Srimonta Gayen, IISc	Dr Shoba Vijayaraghavan - Accenture
	Role of genetic variants in precision medicine for cardiovascular wellness and health Dr Munirajan - University of Madras	Tech Talk 4: Somalogic Explore the future of Precision Proteomics with Somascan Technology Dr Caroline Chan - Customer Solutions Manager
3:45 – 5:00 PM	Tea Break, Poster Presentation & Networking	
5:00 - 6:40 PM	Session 6 - Special Initiatives (Pangenomes, Metagenomics, Immunology)	Session 7 - Special Session: Digital Health and AI
	Chair: Dr Deepti Dileep Deobagkar - SPPU	Chair: Dr Sharad Sharma, iSpirit
	Genomics for conserving endangered species Dr Uma Ramkrishna, NCBS	Dr Raghu Dharmaraju, ARTPARK
	sncRNAs as Biomarker of Tuberculosis Diagnosis Dr Asif Mohammed, ICGEB	Dr Siddharatha Bhattacharya, NATHealth
	Supramolecular attack particles as delivery vehicles: Bridging Immunology and Genomic medicine Dr Ashwin Kumar Jainarayanan, Stanford and Oxford	Dr Himanshu Makkar, CARPL.ai
	Early DNA Methylation Predictors of Type 2 Diabetes Mellitus in Normoglycemic Adults: Insights from a Six-Year Prospective Cohort Study Dr Abdul Jaleel, RGCB	Advancing Precision Medicine in India Parima Desai IQVIA
	Tech Talk 5: Genome Valley/GeneFirst ATOM-Seq: A High-Sensitivity Ligation-Free Library Preparation Chemistry for Cell-Free and FFPE Samples Dr Thomas Dunwell - Head of Research And Development	Tech Talk 6: Algorithmic Biologics Affordable and Accurate Next Gen Sequencing using AI & Molecular Computing Dr Manoj Gopalkrishnan - Founder and CEO
7.00 PM	Business and Networking	





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# 14<sup>th</sup> AUGUST PROGRAM

→ Main Hall  
9:00 AM - 6:30 PM

→ Hall A  
9:00 AM - 3:30 PM

14 <sup>TH</sup> AUGUST	MAIN HALL	HALL A
9:00 - 10:45 AM	Session 8- Omics For Deeper Biological Insights	Session 9 - Plant Genomics (Rice, Cotton, etc.)
	Chair: Dr Ashis Kumar Das - BITS, Pilani	Chair: Dr Raja Mugasimangalam - Genotypic Technology
	Decoding the Hidden Secrets of Chemical Space using AI Dr Gaurav Ahuja - IITD	Near telomere to telomere (T2T) genome assembly of the medicinal plant <i>Nyctanthes arbor-tristis</i> (L) provides insights into ursolic acid biosynthesis Dr Jogeswar Panigrahi - Berhampur University
	Spatial transcriptomic analysis reveals age-related alterations in the spatial organization of cell types within the mouse olfactory bulb Dr Sanjeev Galande - SNU	Legume Microbiome Dynamics: Insights from Multi-Omics Approaches and Beyond Dr Mukesh Jain - JNU
	Unveiling Rare Microbial Taxa from Deep-Sea Ecosystems through Single-Cell Genomics Dr Sushmitha T J - NIOT	The Invasive Plant Rhizo-Microbiome Dr Gitanjali Yadav - NIPGR
	Transcriptionally Active Microbes (TAMs)-Resident Microbes-Disease Severity: A Tale of Tales Dr Rajesh Pandey CSIR-IGIB	Genomics Assisted Plant Breeding Dr Sunil Kumar - Corteva
10:45 - 11:15 AM	Tea Break	
11:15 - 12:00 PM	Keynote Talk: Genomic regulation and functional aspects of long non-coding RNAs Dr Piero Carninci - RIKEN Center for Integrative Medical Sciences, Japan	XXXXXXXXXXXX
12:00- 12:15 PM	Tech Talk 7: Spinco	Session 11 - Genomics Research
12:15- 1:00 PM	Session 10 - Panel: Precision Oncology - clinical genomics, Indian variations observed and implications	Chair: Prof Krishnamoorthy Kannan - KK Biotech
	Chair: Dr Sudha Rao, Genotypic Technology	<i>Theileria annulata</i> Mimics Cancer by Hijacking Host ERK1/2 Phosphorylation Networks: Multi-Omics Reveals Therapeutic Targets Dr Paresh Sharma - NIAB
	<ul style="list-style-type: none"><li>Dr Mayur Parihar - TMC Kolkata</li><li>Dr B S Ajaikumar - HCG</li><li>Dr Ramesh Hariharan - Strand</li><li>Dr S Mahalingam - IIT Madras</li><li>Dr Paturu Kondaiah - IISc</li></ul>	Genomics approaches for surveillance of pathogens affecting dairy cattle Dhanasekaran Shanmugam - NCL pune
		Comparative metageomic analysis of upper respiratory systems microbiome Dr Indranil Chattopadhyay - CUTN
1:00 - 2:00PM	Lunch + Poster & Networking	

14 <sup>TH</sup> AUGUST	MAIN HALL	HALL A
2:00 TO 3:30 PM	Session 12 - Big Data Analytics and AI	Session 13 - Sequence to functions
	Chair: Dr K V S Hari - CBR, IISc	Chair: Dr Lakshmi B R, MDCRC
	Dr Sanchit Mishra - Intel Lab, Bengaluru	Simple Sequence Repeats: functionally conserved constituents of genomes Dr Rakesh Mishra - TIGS
	Breast Cancer Research in the Age of AI and Agents Dr Debarka Sengupta - IIITD	WGCNA uncovers molecular markers of insulin resistance in children with type 1 diabetes Dr Satyajeet Khare - Symbiosis
	Models, Networks & AI: A Trifecta Empowering Big Data Analytics in (Meta) Genomics Dr Karthik Raman - IITM	DNA Repeat Instability in Neuropsychiatric Illness Dr Meera Purushottam - NIMHANS
	The role of deep-learning in unraveling transcriptional regulation in plant genomes Dr Ravi Shankar - IHBT	Soma-to-germline miRNA inheritance and intergenerational stress resilience Dr Meetali Singh - IISc
3:30 TO 4:00 PM	Tea Break	
4:00 TO 5:30 PM	Session 14 - RNA Biology	XXXXXXXXXXXX
	Chair: Dr Sanjeev Galande - SNU	
	The secrets of the dark genome: noncoding RNA component Dr Kumaravel Somasundaram - IISc	
	Dissecting the role of Polyadenylation machinery in Stem Cell maintenance and differentiation. Dr Dasaradhi Palakodeti - inStem	
	RNA methylome of clinical Plasmodial isolates Dr Ashis Das - BITS Pilani	
	Reprogramming Mycobacterial metabolism: Transcriptomic Insights into Drug Targeting and Vaccine Innovation for TB Dr Ruchi Jain, BITS Hyderabad	
5:30 TO 6:30 PM	<ul style="list-style-type: none"><li>• Valedictory Address: Dr L S Sashidhara, NCBS Director</li><li>• Parting thoughts: Dr Sudha, Co Founder and Executive Director, Genotypic Technology</li><li>• Awards Distribution</li></ul>	



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