



Asia Pacific Society of Human Genetics (APSHG)

in association with

Board of Genetic Counseling India (BGCI)

&

Indian Institute of Technology –Madras (IIT-M)

Cordially Invites You to the

APSHG - BGCI Summer School 2025

“Unraveling the Uncertainties in Genetic Diagnosis Through Evolution of Cytogenetics and Sequencing Techniques”

April 4 – 6, 2025;

Biotech Department, IIT–Madras, Chennai, India

Karyotyping

PRACTICAL ASPECTS COVERED

Sanger Sequencing

Chromosomal Microarray

Fluorescence in situ hybridization (FISH)

Long Read Sequencing

Next Generation Sequencing

Organizing Committee



Dr. Brian Hon-Yin Chung

President APSHG

Chief Medical & Scientific Officer, Hong Kong Genome Institute; Clinical Associate Professor, University of Hong Kong



Dr. Qurratulain Annie Hasan

President BGCI

Senior Consultant & Head, Department of Genetics & Molecular Medicine, Kamineni Hospitals, Hyderabad, India



Prof. S. Mahalingam

Professor,

Dept. of Biotechnology, Indian Institute of Technology Madras, Chennai, India

Organizing Head

Dr. B R Lakshmi

Vice President – BGCI

Founder, Trustee and MD, Molecular Diagnostics, Counseling, Care and Research Center (MDCRC), Coimbatore, India



Organizing Secretary

Dr. Janani Dakshina Moorthy

BGCI Member – Level II GC

N- PDF, Department of Biotechnology, IIT Madras, Chennai, India



DAY 1 - April 04, 2025 (Friday)

08.00 am - 09.00 am	Registration		
09.00 am - 09.05 am	Prayer		
09.05 am - 09.15 am	Welcome note	Dr. B R Lakshmi	
09.15 am - 09.35 am	Introduction to Evolution of Genomic Technologies	Dr Brian Hon-Yin Chung	
09.35 am - 09.55 am	Importance of Genetic Counseling in this Fast Growing Genomics Era	Dr Q Annie Hasan	
09.55 am - 10.00 am	Instructions to workshop participants		
Tea Break (10.00 am - 10.30 am)			
	Batch 1	Batch 2A	Batch 2B
10.30 am - 12.30 pm	Karyotyping and FISH	First (Sanger) and Next Generation (Short read) Sequencing	Next Generation (Long-read) Sequencing
Lunch Break (12.30 pm - 1.30 pm)			
01.30 pm - 03.30 pm	MicroArray	Next Generation (Long-read) Sequencing	First (Sanger) and Next Generation (Short read) Sequencing
Tea Break (03.30 pm - 04.00 pm)			
04.00 pm - 05.30 pm	Cyto Data Analysis and it's Interpretation	Sequencing Data Analysis and its Interpretation	



DAY 2 - April 05, 2025 (Saturday)

	Batch 1A	Batch 1B	Batch 2
09.00 am - 11.00 am	First (Sanger) and Next Generation (Short read) Sequencing	Next Generation (Long-read) Sequencing	Karyotyping and FISH
Tea Break (11.00 am - 11.30 am)			
11.30 am - 01.30 pm	Next Generation (Long-read) Sequencing	First (Sanger) and Next Generation (Short read) Sequencing	MicroArray
Lunch Break (1.30 pm - 2.00 pm)			
02.00 pm - 03.30 pm	Sequencing Data Analysis and its Interpretation		Cyto Data Analysis and its Interpretation
Tea Break (03.30 pm - 04.00 pm)			
04.00 pm - 06.00 pm	Nuances of Genetic Counseling for disorders diagnosed with Cytogenetics and Advanced Sequencing Technologies (Discussion of Case series)		
Break (6.00 pm - 7.00 pm)			
7.00 pm - 8.00 pm	Cultural Program		
8.00 pm onwards	Dinner and Networking		



The GENE Link- Role of Clinicians, Lab Scientists & Genetic Counsellors

Session 1 - Introduction to CME

08.00 am - 09.00 am	Registration for CME Participants	
08.15 am - 09.00 am	Assessment for Workshop Participants	
09.00 am - 09.15 am	Welcome Remarks	Dr B R Lakshmi
09.15 am - 09.40 am	Introduction to Genomic Technologies	Dr Brian Chung
09.40 am - 10.05 am	Laboratory and Research advancements in Genomic Technologies	Prof S Mahalingam
10.05 am - 10.30 am	Social, Ethical and Legal aspects of Genetic Testing and Counseling	Dr Breana Cham

Tea Break (10.30 am. - 11.00 am)

Session 2 - Panel Discussion on Cytogenomic Technologies

Moderators: Dr Indhumathi, Dr Vasavi Mohan ; Chair : Dr Kalpana

11.00 am - 11.45 am	Panel Members: Dr Sumita Danda, Dr Dhanalaxmi, Dr Sultana MH Faradz, Dr Gazala Jabeen, Dr Teena Koshy	
11.45 am - 12.00 pm	Interactive Q&A	

Session 3 - Panel Discussion on DNA Sequencing Technologies

Moderators: Dr Janani Dakshinamoorthy, Dr Gayatri R Iyer ; Chair: Prof S Mahalingam

12.00 pm - 12.45 pm	Panel Members: Dr. Mahesh Narayan, Dr Sudha N Rao, Dr Radha Venkatesan, Dr Vijayalakshmi, Dr V Vetriselvi,	
12.45 pm - 01.00 pm	Interactive Q&A	
01.00 pm - 01.30 pm	Closing Ceremony	

Lunch and Networking (1.30 pm - 2.30 pm)



Who Can Attend the Workshop:

Clinicians, Genetic Counselors, and Industry Leaders.

Post Graduate Students, Research Scholars, Faculties, and UG students in the final year from biosciences and other departments with a special interest in genetics.

*Seats are limited and only the first 100 registrations can be accommodated for Workshop

Who Can Attend the CME:

Healthcare professionals, Clinicians, Researchers and students who are interested in expanding their knowledge of genomic techniques and integrating genetic counseling into clinical practice.

Key Learnings from the Hands-on Cytogenetics Workshop

1. Theoretical and practical aspects of cytogenetic techniques (Karyotyping, FISH & CMA)
2. ISCN nomenclature and Reports interpretation
3. Clinical applications of various cytogenetic techniques

Key Learnings from the Sequencing Workshop

1. Introduction to the different sequencing techniques with their clinical applications and challenges.
2. Demonstration of library preparation and run of long read sequencing
3. NGS and Long-read Data analysis and variant prioritization and interpretation for clinical reporting

Key Learnings from the Genetic Counseling Workshop

Understand the genetic counseling aspects of cases diagnosed using advanced cytogenomic and sequencing technologies learnt during the workshop

Takeaways from the 2-Days Workshop

Hands-On Experience: Practical exposure to cutting-edge tools and workflows, bridging the gap between theoretical knowledge and real-world implementation.

Skill Enhancement: Interpreting complex genetic tests and integrating the findings into patient care.

Application-Ready Knowledge: Immediate takeaway that participants can apply in their current roles, enhancing efficiency and precision in diagnostic workflows.

Comprehensive Knowledge: A deep understanding of advanced sequencing techniques, with a focus on their application.

Expert Insights: Direct interaction with industry leaders and clinicians sharing real-life case studies and best practices.

Networking Opportunities: Facilitates connect with peers, mentors, and experts in the field, fostering collaborations for future career growth.

Registration Details:

- The last date for applying to the workshop is 31st January 2025
- The Selected Candidates will be mailed with payment details.
- The Workshop Candidates will have to attend a couple of Pre Workshop sessions via online mode to ensure the workshop workflow is seamless.
- The Workshop fee is exclusive of accommodation
- Accommodation will be Coordinated upon request inside or outside IIT Campus

 For Accommodation : Dr Janani - +91 82484 08851



Speakers for CME



Dr Brian Hon-Yin Chung
President APSHG
Chief Medical & Scientific Officer,
Hong Kong Genome Institute;
Clinical Associate Professor,
University of Hong Kong



Prof. S. Mahalingam
Professor,
Dept. of Biotechnology, Indian
Institute of Technology
Madras,
Chennai, India



Dr Breana Cham
Senior Principal Genetic
Counsellor
KK Women's and Children's
Hospital
Singapore

Panel Members for CME



Dr Dhanalaxmi
Cancer Cytogenetics
Department ACTREC
Tata Memorial Centre
Mumbai, India



Dr Sultana MH Faradz
Head of Genomic
Research Center
University YARSI Jakarta
Indonesia



Dr Sudha N Rao
Co-Founder & Executive
Director - Genotypic
Technology Pvt Ltd,
Bengaluru, India



Dr Mahesh Narayan
Paediatric neurologist
Apollo hospitals
Chennai, India



Dr Vijayalakshmi
Professor and Head,
Department of Cancer Biology
and Molecular Diagnostics
Cancer Institute WIA
Chennai, India



Dr Radha Venkatesan
Scientist
Madras Diabetes
Research Foundation
Chennai, India



Dr Sumita Danda
Professor & HOD
Department of Clinical Genetics
Christian Medical College
Vellore, India



Dr Gazala Jabeen Fazal
Former DGM
Revvity Health Sciences
Pvt Ltd
Chennai, India



Dr V. Vetrivel
Associate Professor
Department of Human Genetics,
Sri Ramachandra Medical College
Chennai, India



Dr Teena Koshy
Assistant Professor,
Department of Human Genetics,
Sri Ramachandra Medical College
Chennai, India

Cytogenetics Workshop Faculty



Dr Indhumathi
Head, Department of Medical Genetics,
Apollo Main Hospital
Chennai, India



Dr Vasavi Mohan
Co Treasurer - BGCI
HOD, Department of Cytogenetics Apollo
Diagnostics Apollo Healthcare Ltd.
Hyderabad, India



Dr Pavani Upendram
Secretary - BGCI; Consultant,
Genetics Department, KIMS,
Secunderabad, India



Dr Sultana MH Faradz
Head of Genomic Research Center
University YARSI
Jakarta, Indonesia

Sequencing Workshop Faculty



Dr Sudha N Rao
Co-Founder & Executive
Director - Genotypic
Technology Pvt Ltd,
Bengaluru, India



Dr Gayatri R Iyer
Joint Secretary - BGCI;
Scientist, Tata Institute for
Genetics and Society,
Bengaluru, India



Dr Aruna Priya
EC Member - BGCI; Sr Genomic
Scientist and Genetic Counselor,
Progenics Labs pvt Ltd,
Hyderabad, India



Dr Sri Priya
Head, SN ONGC
Department of Genetics
and Molecular biology,
VRF, Chennai, India



Dr Koh Ai Ling
Consultant
Paediatric Genetics
KK Women's and
Children's Hospital,
Singapore

Genetic Counseling Faculty



Dr. Deepa Bhat
EC Member - BGCI;
Professor, JSS Medical College and
Hospital, Mysuru, India



Dr. Nithiwat Vatanavicharn
Division of Medical Genetics, Department of
Pediatrics, Faculty of Medicine Siriraj
Hospital, Mahidol University, Thailand



Mr Suraj Manikandan
EC Member - BGCI;
Genetic Counselor, KK Women's and
Children's Hospital, Singapore



Ms. Vaishnavi Suresh
EC Member - BGCI;
Senior Genetic Counselor, Mapmygenome,
Hyderabad, India

SCAN TO APPLY FOR WORKSHOP



SCAN FOR CME REGISTRATION



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