

**SEVENTEENTH ICMR COURSE ON
MEDICAL GENETICS & GENETIC COUNSELING**

PROGRAM
20th August 2018 to 1st September 2018



Department of Medical Genetics
Sanjay Gandhi Postgraduate Institute of Medical Sciences
Lucknow – 226 014

Faculty for the course

1. Dr Madhulika Kabra, Professor, Genetics, Department of Pediatrics, AIIMS, New Delhi
2. Dr Ratna Dua Puri, Professor & Senior Consultant, Centre for Medical Genetics, Sir Gangaram Hospital, New Delhi
3. Dr Ashwin Dalal, Head, Diagnostics Division, Centre for DNA Fingerprinting and Diagnostics, Hyderabad
4. Dr Girisha K M, Professor and Head, Department of Medical Genetics, Kasturba Medical College, Manipal
5. Dr Sankar VH, Consultant, SAT Hospital, Medical College, Trivandrum
6. Dr Neerja Gupta, Assistant Professor, Genetics, Department of Pediatrics, AIIMS, New Delhi
7. Dr Prajnya Ranganath, Associate Professor and Head, Department of Medical Genetics, Nizam's Institute of Medical Sciences, Hyderabad
8. Dr Shagun Aggarwal, Associate Professor, Department of Medical Genetics, Nizam's Institute of Medical Sciences, Hyderabad
9. Dr Dhanya Lakshmi N, Assistant Professor, Department of Medical Genetics, Nizam's Institute of Medical Sciences, Hyderabad
10. Dr Sheetal Sharda, Medgenome, Bangalore
11. Dr Shailesh Pandey, Metropolis Health Care Mumbai

AND faculty of SGPGIMS: Prof Sarita Agrawal, Prof Aditya Kapoor, Prof Shubha Phadke, Dr Kausik Mandal, Dr Deepti Saxena, Dr Amita Moirangthem, Dr. Priyanka Srivastava

PROGRAM

20th August Monday

Time	Topic	Speaker/ Incharge
9.00 - 10.00 am	Registration: Welcome and Introduction	
10.00 - 11:00 am	Pedigree to DNA: Introduction to Clinical Genetics*	Dr Shubha Phadke
11:00 - 11.30 am	TEA	
11.30 - 12:30 am	Learning to draw a Pedigree*	Dr Kausik Mandal
12.30 - 1.00 pm	Practice session: Pedigree Drawing*	Dr Kausik Mandal
1.00 - 2.00 pm	Lunch	
2.00 - 2.30 pm	Cases	Dr Aradhana
2.30 - 3.30 pm	Prenatal Diagnosis*	Dr Deepti Saxena
3.30 - 4.00 pm	Tea	
4.00 - 5.00 pm	Laboratory medicine to molecular genetics*	Prof. Sarita Agrawal

21st August Tuesday

Time	Topic	Speaker/ Incharge
8.00 - 9.00 am	Mendelian Inheritance*	Dr Amita
9.00 - 10.00 am	Molecular Basis of Genetic Disorders*	Dr. Priyanka Srivastava
10.00 - 10.30 am	Tea Break	
10.30 - 1.00 pm	Batch A -Demo I Batch B – Demo V	Dr. Priyanka Srivastava Dr Shubha Phadke
1.00 - 2.00 pm	Lunch Break	
2.00 - 2.30 pm	Cases	Dr Shivani
2.30 - 3.30 pm	Syndrome Diagnosis: Use of Databases	Dr Shubha Phadke
3.30 - 4.00 pm	Tea	
4.00 - 5.00 pm	Neural Tube Defects & Hydrocephalus*	Dr Deepti Saxena
5:00 pm	Visit to the Library: Affair with Books	SRs

22nd August Wednesday

Time	Topic	Speaker/ Incharge
8.00 - 9.00 am	Prenatal screening for Down Syndrome*	Dr Deepti Saxena
9.00 - 10.00 am	Neurodegenerative Disorders: Illustrative cases*	Dr Madhulika Kabra
10.00 - 10.30 am	Tea Break	
10.30 - 1.00 pm	Batch A -Demo III Batch B – Demo I	Dr Kausik Mandal Dr. Priyanka Srivastava
1.00 - 2.00 pm	Lunch Break	
2.00 - 2.30 pm	Case discussion	Dr Anup
2.30 - 3.30 pm	Neonatal Screening in Indian Scenario*	Dr Madhulika Kabra
3.30 - 4.00 pm	Tea	
4.00 - 5.00 pm	Dysmorphology Diagnosis*	Dr Shubha Phadke

23rd August Thursday

Time	Topic	Speaker/ Incharge
8.00 - 9.00 am	Clinical Cytogenetics*	Dr Kausik Mandal
9.00 - 10.00 am	Acute metabolic disorders: Illustrative cases*	Dr Neerja Gupta
10.00 - 10.30 am	Tea Break	
10.30 - 1.00 pm	Batch A -Demo VIII Batch B – Demo II	Dr Madhulika Kabra/ Dr Deepti Saxena Prof. Sarita Agrawal
1.00 - 2.00 pm	Lunch Break	
2.00 - 2.30 pm	Case discussion	Dr Deepti Saxena
2.30 - 3.30 pm	Skin as a clue to genetic disorder*	Dr Neerja Gupta
3.30 - 4.00 pm	Tea	
4.00 - 5.00 pm	USG /Amniocentesis – Batch A Fetal autopsy - Batch B	Dr Shubha Phadke / Dr Kausik Mandal /

24th August Friday

Time	Topic	Speaker/ Incharge
8.00 - 9.00 am	Genetic Counseling*	Dr Shubha Phadke
9.00 - 10.00 am	Overgrowth Syndromes: Picture Gallery Approach to Short Stature*	Dr Kausik Mandal Dr Shubha Phadke
10.00 - 10.30 am	Tea Break	
10.30 - 1.00 pm	Batch A -Demo VII; Batch B – Demo IV	Dr Shubha Phadke, Dr Kausik Mandal
1.00 - 2.00 pm	Lunch Break	
2.00 - 2.30 pm	Case discussion	Dr Kausik Mandal
2.30 - 3.30 pm	Pharmacogenomics*	Dr. Amita
3.30 - 4.00 pm	Tea	
4.00 - 5.00 pm	USG /Amniocentesis - Batch B Fetal autopsy - Batch A	Dr Shubha Dr Kausik

25th August Saturday

Time	Topic	Speaker/ Incharge
8.00 - 9.00 am	Genetics of Multifactorial Disorders*	Dr Shubha
9.00 - 10.00 am	Genetic Counseling Exercises – I*	Dr. Dhanya; Dr Aradhana
10.00 - 10.30 am	Tea Break	
10.30 - 11.00 am	Application of NGS in Diagnosis for Rare Inherited Disorders*	Dr Sheetal Sharda
11.00 - 12.00 noon	Down syndrome*	Dr Shubha
12.00 - 1.00 pm	Intellectual Disability: Diagnostic Approach*	Dr Ratna Dua Puri
1.00 - 2.00 pm	Lunch Break	
2.00 - 2.30 pm	Non- Mendelian Inheritance*	Dr Ratna Dua Puri
3.00 - 3.30 pm	Cord Blood Banking & Stem Cell Therapy*	Dr. Dhanya Lakshmi N
3.30 - 4.00 pm	Tea	
4.00 - 5.00 pm	Challenges in Genetic Counseling – in NGS era*	Dr Ratna Dua Puri

27th August Monday

Time	Topic	Speaker/ Incharge
8.00 - 9.00 am	Duchenne Muscular Dystrophy: Gene Mapping to Gene Therapy*	Dr Prajnya R
9.00 - 10.00 am	Skeletal Dysplasia: An Approach*	Dr Girisha K M
10.00 - 10.30 am	Tea Break	
10.30 - 11.30 am	Approach to Disorders of Sexual Differentiation *	Dr Prajnya R
11.30 - 12.30 pm	Neurodegenerative Disorders*	Dr. Ashwin Dalal
12.30 - 1.30 pm	Lunch Break	
1.30 - 2.00 pm	Case discussion	Dr Aradhana
2.00 - 2.30 pm	Prenatal Genetics: Interactive Session*	Dr Shubha Phadke
2.30 - 3.30 pm	Genetic Approach to Deafness *	Dr. Ashwin Dalal
3.30 - 4.00 pm	Tea	
4.00 - 5.00 pm	Internet Resources for Genetic Disorders *	Dr Girisha K M

28th August Tuesday

Time	Topic	Speaker/ Incharge
8.00 – 8.40 am	Gene Mapping Strategies *	Dr Ashwin Dalal
8.40 to 9.20 am	Genotype - Phenotype Correlation: Thalassemia Syndromes & Others *	Dr Prajnya R
9.20 - 10.00 am	Fetal Autopsy and its Importance*	Dr Girisha K M
10.00 - 10.30 am	Tea Break	
10.30 - 1.00 pm	Batch A -Demo V Batch B – Demo VIII	Dr Shubha Phadke Dr Kausik Mandal
1.00 - 2.00 pm	Lunch Break	
2.00 - 2.30 pm	Case discussion	Dr Shubha
2.30 - 3.30 pm	Genetics of Reproductive Failure*	Dr Deepti Saxena
3.30 - 4.00 pm	Tea	
4.00 - 5.00 pm	Treatment of Genetic Disorders*	Dr Sankar VH

29th August Wednesday

Time	Topic	Speaker/ Incharge
8.00 - 9.00 am	Monogenic Disorders: Case Scenarios and Counseling*	Dr Sankar VH
9.00 - 10.00 am	Lysosomal Storage Disorders: Diagnosis to management *	Dr Kausik Mandal
10.00 - 10.30 am	Tea Break	
10.30 - 1.00 pm	Batch A -Demo II Batch B – Demo III	Prof. Sarita Agrawal Dr Kausik Mandal
1.00 - 2.00 pm	Lunch Break	
2.00 - 2.30 pm	Case discussion	Dr Amita
2.30 - 3.30 pm	Prenatal Cytogenetics – Conventional to Molecular*	Dr Shubha Phadke
3.30 - 4.00 pm	Tea	
4.00 - 5.00 pm	Prenatal Diagnosis of Malformation Syndromes*	Dr Shubha Phadke

30th August Thursday

Time	Topic	Speaker/ Incharge
8.00 to 9.00 am	DNA Mutation Nomenclature*	Dr. Priyanka Srivastava
9.00 to 10.00 am	Fetal Echocardiography*	Dr Aditya Kapoor
10.00 to 10.30 am	Tea Break	
10.30 to 1.00 pm	Batch A –Demo VI Batch B – Demo VII	Dr Shubha Phadke / Dr Kausik Mandal
1.00 to 2.00 pm	Lunch Break	
2.00 to 2.45 pm	Learning Exome analysis*	Dr Amita
2.45 to 3.45 pm	Cancer cytogenetics*	Dr Shailesh Pandey
3.45 to 4.00 pm	Tea	
4.00 to 5.00 pm	Participants' presentations*	

31st August Friday

Time	Topic	Speaker/ Incharge
8.00 to 9.00 am	Pre-pregnancy Clinic & Exposure to Teratogens*	Dr Kausik Mandal
9.00 to 10.00 am	Cancer Genetics – Counseling Issues*	Dr Deepti Saxena
10.00 to 10.30 am	Tea Break	
10.30 to 1.00 pm	A-Demo IV B-Demo VI	Dr Kausik Mandal
1.00 to 2.00 pm	Lunch Break	
2.00 to 2.30 pm	Case discussion	Dr Anup
2.30 to 3.30 pm	Genetic Counseling Exercises II *	Dr Deepti Saxena, Dr Anup
3.30 to 4.00 pm	Tea	
4.00 to 4.30 pm	Fetal Therapy*	Dr Shagun Aggarwal
4:30 to 5.00 pm	QUIZ	Dr Shagun Aggarwal

1st September Saturday

Time	Topic	Speaker/ Incharge
8.00 to 9.00 am	Diagnostic surprises in NGS era*	Dr Shagun Agarwal
9.00 to 10.00 am	Interpretation of Cytogenetic Microarray: Case scenarios*	Dr. Priyanka Srivastava
10.00 to 10.30 am	Feedback & Tea	
10.30 to 11.30 am	Interactive Session: Ethical Issues in Medical Genetics*	Dr Shagun Aggarwal
11.30	Valedictory function followed by Lunch	

Laboratory Demonstrations / OPD (10.30 AM to 1:00 PM)

Demo.	Experiment	Venue	Demonstrator
Demo I	<ul style="list-style-type: none"> DNA extraction Sequencing technique and Interpretation 	1 st floor 1 st floor	Ms Suzeena, Dr Priyanka S, Ms Archana, Mr. Shashank
Demo II	<ul style="list-style-type: none"> QFPCR, Maternal contamination TP-PCR and PCR for SCA 	2 nd floor Ground floor 2 nd floor	Mr. R S Yadav, Dr Priyanka S Ms Deepika Delsa, Ms Priyanka Vishwakarma
Demo III	<ul style="list-style-type: none"> MLPA technique MLPA indication and result interpretation 	Ground floor Ground floor	Mr Yougal/ Mr Brijesh Patel Dr Amita /
Demo IV	<ul style="list-style-type: none"> Newborn Screening Lab Microarray 	1 st floor Ground floor	Dr Aradhana/ Mr. Kamal/ Mr. Upendra/ Mrs. Arti Dr Priyanka S
Demo V	Cytogenetics I <ul style="list-style-type: none"> Blood Culture planting Harvesting of Blood Cultures and Banding 	Cytogenetics Lab (1 st floor)	Mr. Raghuvir Dr Anup Mr. Ramsaran, Mrs Parul
Demo VI	Cytogenetics II <ul style="list-style-type: none"> Dissection of Chorionic Villi, Amniotic fluid cultures Automated Karyotyping/ Abnormal Karyotypes & FISH) 	Cytogenetics Lab (1 st floor)	Mr Ashish Pandey Mr. Ramsaran, Mrs Parul Dr Shivani
Demo VII	Genetics OPD	New OPD (4 th floor)	OPD consultants
Demo VIII	Genetic Counseling Clinic	New OPD (4 th floor)	OPD consultants

Everyday reading material, quiz and reading material: Dr Dhanya, Dr Amita, Dr Shubha