# **FetoGenetics**

International Congress of SFM Telangana Chapter

International Society for Prenatal Diagnosis (ISPD)

**Demystifying Fetal Genetics** 







## Welcome Message

On behalf of the Telangana Chapter of The Society for Fetal Medicine, India it is our proud privilege to extend a warm welcome to each one of you to the First International Congress from 14th-15th December 2024 in collaboration with the International Society for Prenatal Diagnosis announces Fetogenetics. The Congress aims to demystify genetics for the fetal medicine practitioner through interactive learning with leading National and International Faculty. Multiple immersive workshops precede the congress on the 13th December promising one of its kind hands on experience in fetal syndromic diagnoses, genetic counselling and genetic report interpretation.

We welcome all to Hyderabad, the erstwhile city of pearls, and also the city of futuristic living, to participate in this academic extravaganza



**Dr Mohit V Shah**National President SFM



Dr Ashok Khurana Mentor Emeritus SFM



**Dr Chinmayee Ratha**Organising Chairperson



**Dr Shagun Aggarwal**Organising Secretary

# EARLY BIRD REGISTRATIONS TILL 20<sup>th</sup> NOVEMBER

SFM MEMBER INR 8000 NON MEMBER INR 10000 PG STUDENT INR 7000

### **WORKSHOP REGISTRATIONS**

ONE WORKSHOP FEE
SFM MEMBER
INR 3200
NON MEMBER
INR 4000

TWO WORKSHOP FEE

SFM MEMBER INR 5900 NON MEMBER INR 7500

The above fees is inclusive of 18% GST



### Pre-Conference Workshops - 13th December, 2024

#### Pre-Lunch - ATGC of Genetic Tests- From Lab to Clinic

**Venue:** Department of Medical Genetics, Nizam's Institute of Medical Sciences, Punjagutta, Hyderabad (9:00 am - 1:00 pm)

#### Convener- Dr Shagun Aggarwal, Head, Department of Medical Genetics, Nizam's Institute of Medical Sciences

This workshop is focused on a practical application for various genetic tests in fetal medicine practice. It would involve a tour of the Medical Genetics laboratory, live analysis of experiments and case/report based discussion of scenarios like abnormal reports, reports with variants of uncertain significance; and pre and post test counselling issues with genetic tests. Various tests like aneuploidy testing, karyotype, Sanger sequencing, chromosomal microarray and exome sequencing would be covered in this workshop.

#### Introduction to genetic tests in Fetal medicine Dr Shagun Aggarwal

	33		
Live Demos and visit to lab			
Coordinators	Dr Karthik Bharadwaj, Dr Neelam Saini		
Assistants			
Test 1	QF-PCR- aneuploidy and MCC		
Test 2	Karyotype		
Test 3	Sanger sequencing for target variant- thalassemia		
Test 4	Chromosomal microarray		
Test 5	Exome sequencing		

### **Post-Lunch - Genetic Counseling in Fetal Medicine-Navigating the Maze**

**Venue:** Department of Medical Genetics, Nizam's Institute of Medical Sciences, Punjagutta, Hyderabad (2:00 pm - 6:00pm)

#### Convener- Dr Shagun Aggarwal, Head, Department of Medical Genetics, Nizam's Institute of Medical Sciences

This workshop would involve case based interactive discussions and group activity. It would involve actual and simulated case scenarios and cover critical aspects of history taking, pedigree drawing, approach to index child workup, abnormal ultrasound workup, pre-test and post-test counselling for complex situations like variants of uncertain significance, NIPT result interpretation, choosing the right genetic investigations, etc. and other scenarios relevant to fetal medicine practice.

# Introduction to Genetic Counseling and Pedigree drawing in Fetal Medicine

Dr Shagun Aggarwal

drawing in retai medicine	
L	ive exercises
Coordinators	Dr Gayatri Nerakh, Dr Surya Balakrishnan
Assistants	
Case 1	Previous child with abnormality
Case 2	Prenatal ultrasound with abnormality
Case 3	Pre and post test counselling for NIPT
Case 4	VOUS on Prenatal exome report
Case 5	Bad obstetric history/ Recurrent pregnancy losses

#### **Pre-Lunch - Fetal Echo and Cardio Genetics**

Venue: Resolution Centre of Fetal Medicine 2nd Floor KIMS Sunshine Hospital Building, Begumpet, Hyderabad (9:00 am - 1:00 pm)

The Cardiogenetics workshop, involves a deep dive into the intricate relationship between fetal cardiac abnormalities and genetic association. This workshop is designed for doctors interested in fetal echocardiogram and to understand the genetic underpinnings of heart disease. The participants will explore the latest advancements in fetal echo, demonstration of fetal echocardiogram, relation of various genetic abnormalities associated with cardiac diseases in fetus, when to offer testing, what to test and what results to expect. Also, regarding what and how to counsel the patients. Join us as we unravel the complexities of Cardiogenetics.

	Session 1		
Evaluation of the Fetal Heart			
Topic 1	Second Trimester fetal heart demonstration		
Topic 2	Ultrasound indicators rising suspicion of evolving congenital cardiac abnormalities		
Topic 3	Basic cardiac evaluation in the first trimester		
	Session 2		
Opening the pandora box of genetics in congenital heart disease			
Topic 1	Four Chamber abnormalities and genetic association		
Topic 2	Conotruncal anomalies and genetic association		
Topic 3	Connecting the dots between CHD and aneuploidies		
	Session 3		
Diving deep into the Cardiogenetics			
Topic 1	The cardiac channelopathies -Inherited arrhythmias		
Topic 2	Jumbled organs and the genetic associations		
Topic 3	Genetics and epigenetics of 22q11.2 - The DiGeorge syndrome		

#### **Post-Lunch - Fetal Neurosonography and Neuro Genetics**

Disorders of the developing nervous system may be of genetic origin, comprising congenital malformations of spine and brain

genetic variations	brain development. Fetal neurogenetics integrates aspects of genetics and development of CNS and how influence neurodevelopmental processes rogenetics helps in improving prenatal diagnostic by utilizing advanced genetic tests and help for the ients.
	Session 1
	Critical Evaluation of CPU of the body
Topic 1	Syndromes and Brain - No more sorrow
Topic 2	Fetus CNS in First Trimester
Topic 3	Role of MRI in evaluation of fetal CNS
	Session 2
	Major CNS abnormalities - guiding to choose the right test
Topic 1	Demonstration of Second Trimester Fetal CNS
Topic 2	Ventriculomegaly
Topic 3	Corpus Callosal abnormalities
Topic 4	Not so innocent CPC
	Session 3
	Session Name: Diving deep into the Neurogenetics
Topic 1	Posterior fossa malformations
Topic 2	Aneuploidies and CNS malformations
Topic 3	NTD's and Genetics

# Scientific Program 14<sup>th</sup> December, 2024

08:50-09:00	Welcome		
	Session 1: Setting the Stage		
09:00-09:22	Genetic Red Flags in First Trimester Scans		
09:23-09:45	Second Trimester Markers: Present Day Interpretation		
09:46-10:08	Third Trimester Red Flags		
10:09-10:20	Audience Interaction		
10:20-10:45	Tea Break/ Trade Partner Interaction/ Poster Viewing		
Session 2: Sonographic Probing for Syndromes			
10:45-11:07	Central Nervous System: What to Expect and Document		
11:07- 11:30	Interactive Case Based Discussion		
11:30-11:52	Cardiovascular System: What to Expect and Document		
11:52-12:15	Interactive Case Based Discussion		
12:15- 12:37	Craniofacial Anomaly: What to Expect and Document		
12:37-13:00	Interactive Case Based Discussion		
13:00-13:22	Skeletal Anomaly: What to Expect and Document		
13:22-13:45	Interactive Case Based Discussion		
13:45-14:30	Lunch/ Poster Evaluation		
14:30-15:10	Googly Session: Audience Driven		
15:10-16:10	Free Paper Presentations		
	(Each 3.5 minutes Presentation+1.5 minutes Discussion)		
16:10-16:30	Tea		
	Session 3: Newer Technologies in Clinic		
16:30-16:45	NIPT for Chromosomal Disorders		
16:45-17:05	NIPT as a Contingent Screen: The Barcelona Model		
17:05-18:00	Dr IC Verma Memorial Kahoot Quiz		
18:00	Inauguration		
19:00 onwards	Gala Dinner and Cultural Program		

# 15<sup>th</sup> December, 2024

08:50-09:00	Welcome Welcome on behalf of ISPD
09:00-09:25	Basics of Genetics for Fetal Medicine Practitioner
09:25-09:50	Cytogenetic Testing in Fetal Anomalies
09:50-10:15	Tea break
10:15-10:40	Buffet of Genetic Tests: Choosing the Best Fit
10:40-10:55	Exome Sequencing for Fetal Anomalies
10:55-11:20	How to Optimize Genetic Referrals in Resource Restricted Settings
11:20-11:45	Interactive Audience Discussion
11:45-12:45	Panel Discussion: Genetic Evaluation for Lethal Fetal Anomalies
12:45-13:00	Audience Interaction
13:00-14:00	Lunch
14:00-15:00	Panel Discussion: Genetic Evaluation for Non-Lethal Fetal Anomalies
15:00-15:15	Audience Interaction
	Indian Guidelines for Reproductive Genetic Testing
15:15-16:45	1. Preconceptional Carrier Screening
	2. Prenatal Invasive Testing
	Aneuploidy Screening
15:45-16:15	ISPD Guidelines for Reproductive Genetic Testing
16:15-16:30	Audience Interaction
16:30-16:55	Tea Break
16:55-17:10	NIPT for Single Gene Disoders
17:10-17:30	Fetal Medicine as the New Frontier of Genetic Discoveries
17:30-17:45	Valedictory
17:45-18:00	Vote of Thanks