DR. MITESH SHETTY

HOD & Consultant - Medical Genetics

Qualification

MBBS from the University of Mumbai | MSc (Medical Genetics) from the University Of Glasgow, UK | Ph.D (Medical Genetics) from MAHE, Manipal | European Board Certified Clinical Laboratory Geneticist

Overview

Dr. Mitesh Shetty is a renowned medical geneticist in Bangalore with over 20 years of rich experience. He is currently the HOD and Consultant - Medical Genetics at Manipal Hospital Old Airport Road. Dr. Shetty's extensive background in genetic counselling and prenatal diagnosis has made him a leading figure in this specialised field. Dr. Mitesh Shetty holds a diverse set of skills in the field of Clinical Genetics, Prenatal diagnosis, & Genetic Counseling with expertise in Cytogenetic, FISH, Biochemical Screening, and Molecular techniques like Chromosomal Microarray, NGS, and Sanger sequencing methods. He has standardized new techniques like the Pre-implantation Genetic Test (PGT), Somatic study, Sperm Aneuploidy Test, Cancer array, etc. He is the foremost HOD & Consultant Genetics in Oldairportroad, Bangalore. As a top medical geneticist in Bangalore, Dr. Mitesh Shetty specialises in dysmorphology, skeletal dysplasias, neuromuscular disorders like Duchenne muscular dystrophy and spinal muscular atrophy, and neurodegenerative conditions such as Huntington's disease. He is proficient in diagnosing chromosomal disorders, genetic hemolytic anaemias, and conditions related to mental retardation and recurrent abortions. His expertise also extends to interpreting various investigative reports, including biochemical screenings, non-invasive prenatal diagnosis (NIPT), chromosomal microarray (CMA), and next-generation sequencing (NGS). Dr. Shetty is also well-versed in genetic counselling for cancer risk assessment and pre-marital screenings. Dr. Shetty's academic journey includes an MBBS from Padmashree. Dr. D.Y. Patil Medical College, Mumbai, an M. Sc in Medical Genetics from the University of Glasgow, UK, and a Ph.D. in Medical Genetics from Manipal University. His research background is extensive, having contributed to several national and international projects in the field of medical genetics. His research training includes work as a Senior Research Fellow in genetic control of thalassemia and as a Medical Research Officer in projects related to cancer genomics and proteomics. Dr. Shetty's involvement in these prestigious research projects has further cemented his authority in the medical genetics field. Throughout his career, Dr. Shetty has conducted numerous workshops and symposiums, including a hands-on workshop on chromosomal microarrays and awareness events for Down syndrome and autism. His work in integrating genomics into clinical practice has been widely recognised and praised by his peers. He has also contributed to the academic community by guiding PhD and M.Phil. students and teaching various courses related to genetic counselling. In addition to his clinical and academic roles, Dr. Shetty has published extensively in national and international medical journals. His recent publications cover a wide range of topics, from developmental and epileptic encephalopathies to genetic disorders such as β-Thalassemia and Dravet syndrome. He has also authored chapters in medical textbooks, further contributing to the field's knowledge base. Dr. Shetty is fluent in English, Hindi, Kannada, and Tulu, allowing him to connect with a wide range of patients from different linguistic backgrounds.

Fellowship & Membership

- Short-term Fellowship-Medical Genetics, York Hill Hospital, Glasgow, U.K.
- European Board of Medical Genetics (EBMG).
- Indian Society of Human Genetics (ISHG).
- Indian Academy of Paediatrics-Genetics Specialty Chapter.

- Bangalore Society of Obstetrics & Gynaecology.
- Indian Society of Inborn Errors of Metabolism.
- Indian Society of Prenatal Diagnosis & Therapy.
- Molecular Pathology Association of India.

Field of Expertise

- Two decades of extensive experience in the field of Medical Genetics Prenatal diagnosis & Genetic counseling
- Genetic diagnosis of Down syndrome, Autism, β-Thalassemia, Haemophilia, Duchenne muscular dystrophy (DMD) & Spinal muscular atrophy (SMA) etc.
- Genetic counseling in consanguinity, recurrent abortions, Infertility, Pre- implantation Genetic Screening Test (PGT), Non-Invasive Prenatal Screening (NIPT/NIPS)
- Expertise in Karyotyping, FISH study, Double/Quadruple study, Chromosomal Microarray & Next Generation Sequencing (NGS)
- Risk assessment in hereditary cancer disorders like Breast & Ovarian cancer

Languages Spoken

- English
- Hindi
- Kannada
- Tulu

Awards & Achievements

- Faculty for a Certificate course in Genetic Counselling (MAHE).
- Recognized Guide for Ph.D. in Manipal Academy of Higher Education (MAHE).
- Guided Ph.D., M.Phil & MSc students & trained students for Genetic counseling.
- Received IBM Sponsorship of CAS Project expenses towards clinical research.
- Conducted a public awareness program on World Thalassemia Day (May 18) & World Down syndrome day (Mar 19).
- Organized CME on “Integrating Genomics into Clinical Practice” (Jul 18) & “Autism awareness day” (Apr 19).
- Published papers in National & International journals & CHAPTER IN BOOK-“Genetics in Congenital Heart Disease” In “A Comprehensive Approach to Congenital Heart Disease (A Lifelong Odyssey)” Jaypee brothers, ISBN 978-93-5090-267-7.

Talks & Publications

- “Aneuploidy screening of sperm-is it useful? 26th Annual Conference organized by the Indian Society of Assisted Reproduction(ISAR)in Mumbai on 28th August.
- “Genetic Counseling in Autism” organized by Manipal Advanced Centre for Child care on 17th April 2022.
- “Genetic Testing to Shorten the Diagnostic Odyssey” organized by Manipal Advanced Centre for Child care on 13th April 2022.
- “Down Syndrome Awareness Day 2022” organized by Rortact Club, Bangalore on 20th Mar 2022.
- “IEM & Challenges in Prenatal Diagnosis” organized by NITTE University on 25th Feb 2022.
- “Experience of chromosomal microarray applied in prenatal and postnatal settings “organized by Agilent India on 28th Jan 2022.
- “Behind the scenes! Peek into the working of an NBS Lab” in the NATIONAL NEWBORN SCREENING SYMPOSIUM

organized by the National Neonatal Forum India (NNFI) on 26th Sep 2021.

- “Spinal Muscular Atrophy Awareness Discussion” Facebook Live organized by Integrated Health & Wellbeing (IHW) Council on 27th Aug 2021.
- “Autism & Genomics” Organized by Lybrate GoodMD on 9th Mar 2021.
- “Don’t Neglect Medical Genetics in Women’s Health” organized by the Obstetrics & Gynecology Society of Bangladesh on 10th Jan 2021.
- "6th Edition of Year in Review Breast Cancer Conference" organized by Women’s Health Initiative by Tata Memorial Hospital, Mumbai held on 11th Jan 2021.
- “Current status of Medical Genetics in India” Facebook Live organized by Cachar Chronicle on 18th Sep 20.
- “Autism & Genomics” in Webinar on Insight into Autism & Fragile-X; organized by Indian Medical Association-Medical Student network in association with Fragile-X society, Indian on 22nd July 20.
- “Our Experience of Chromosomal Microarray” in Celebrating 15 Years of Trusted Genomic Analysis with CGH on 26th Feb 20.
- “Advanced Genetic Study with Interesting Case Scenarios” in Cloudnine-OAR Hospital on 11th Feb 20.
- “Genetics in Clinical Practice” in Manipal Hospital, Goa on 8Th Jan 20.
- “Genetic etiology of Developmental delay & disability” in CME on Developmental Pediatrics, SDUMC on 25th October 2019.
- “Genetic disease Diagnosis & Gene therapy" in 41st CME in Internal Medicine organized by the Association of Physicians of India & Medical Education and Research Trust, Bangalore on 22th Sep 2019.
- Panel discussion ‘CME on Anemia in Pregnancy; titled ‘The Pale Gravida’ - A Challenge !?!? on 22-Sep-2019, Bengaluru organized by The Society for Maternal-Fetal Medicine, (India).
- A retrospective study of the profile and outcome of children with Dravet syndrome in a tertiary care hospital of Southern India, Journal of Pediatric Epilepsy (Accepted).
- A novel mutation in GATA3 gene in a case of Hypoparathyroidism, Deafness and Renal dysplasia syndrome, Indian Journal of Nephrology (Accepted).
- Sameeta M. Prabhu, Bidisha Banerjee, Ullas Acharya, Poonam P Hegde, Mitesh Shetty. MELAS (Mitochondrial Encephalopathy, Lactic Acidosis, and Stroke-Like Episodes)—Usual and Unusual MRI Finding. Indian J Radiol Imaging https://www.thieme-connect.com/products/ejournals/pdf/10.1055/s-0042-1755241.pdf.
- Jyothsna Madan, Mitesh Shetty*, B S Ramamurthy, Surekha Managoli. “A Multidisciplinary approach for Prenatal diagnosis of FRASER SYNDROME - report of a novel variant in FRAS1.” Taiwanese Journal of Obstetrics and Gynecology, Volume 61(2022)129-132. https://doi.org/10.1016/j.tjog.2021.11.020.
- Shetty M. “Genomics in infectious diseases” Pediatr Inf Dis 2021; 3 (2):57-64. https://www.pidjournal.com/doi/PID/pdf/10.5005/jp-journals-10081-1296.
- Dr. Mitesh Shetty on More Bangaloreans take a genetic test to screen for future risk | Deccan Herald. Click Here
- Manipal Hospitals Old Airport Road: Dr. Mitesh Shetty on Anderson-Fabry Disease: Types, signs and symptoms, diagnosis, treatment of rare genetic disorder that affects organsClick Here