

National Inherited Diseases Administration (NIDAN) Kendra, Department of Biotechnology

A NIDAN Kendra is a genetic diagnostic and counselling centre established under the UMMID initiative (Unique Methods of Management and Treatment of Inherited Disorders) by the Department of Biotechnology (DBT), Government of India. The Unit is located on the 3rd floor of Baker Building, NRS MC&H, Kolkata.

Core Members of NIDAN Kendra (29.04.2019 – 30.04.2024):

Principal, NRS Medical College & Hospital

Prof. Soma Gupta, Principal Investigator, NRS Medical College & Hospital

Dr. Shuvraneel Baul, Principal Investigator, NRS Medical College & Hospital

Dr. Arindam Biswas, Scientific Officer, NRS Medical College & Hospital

Ms. Shreyasi Dasgupta, Senior Technician, NRS Medical College & Hospital

Ms. Suman Kumar Singh, Technician, NRS Medical College & Hospital

Objectives of the NIDAN Kendra:

- (i) To establish NIDAN Kendra in Government hospitals with a high patient influx, to provide Genetic counselling, Prenatal testing and diagnosis, Management, and Multidisciplinary care
- (ii) To produce skilled clinicians in Human Genetics, and
- (iii) To undertake screening of pregnant women and new-born babies for inherited genetic diseases in hospitals in aspirational districts

Instruments acquired from the Department of Biotechnology, Govt. of India, grant:

- (i) ELISA reader
- (ii) VDRL shaker
- (iii) Real-Time PCR
- (iv) Micro Centrifuge (Room Temperature)
- (v) Table-top Cold Centrifuge and Plate Rotor
- (vi) Qubit 4 Fluorometer
- (vii) Laminar Flow
- (viii) 4-degree refrigerator
- (ix) Horizontal Gel apparatus (Medium) with Power pack
- (x) Micro Pipette (0.2-2 ul, 2-20 ul, 100-1000 ul)
- (xi) Gel documentation System
- (xii) Computers

Workshop/Trainings conducted by NIDAN Kendra

- (i) A session of Hands-on Workshop entitled “*Handle the Helix*” and Continuing Medical Education (CME) **conducted by DBT-NIDAN Kendra, NRS MC&H**, Kolkata (in Association with AMBI, WB Chapter) was held on 03-04 February 2023 at the DBT-

NIDAN Kendra, 3rd floor, for Post Graduate students, Senior Residents, Demonstrators, and Junior Faculties.

- (ii) A training and CME entitled “***Molecular Biomarkers in Diseases: Current Status, Challenges and Future Perspectives***” conducted by the DBT-NIDAN Kendra, Nil Ratan Sircar Medical College, Kolkata was held on 22nd September, 2023.

Publication from NIDAN:

- (i) Detection of Common Deletion Mutations ($-\alpha^{3.7}$ and $-\alpha^{4.2}$ kb) in *HBA* gene and Genotype-Phenotype Correlation. Archives of Clinical and Biomedical Research. 2025. DOI:10.26502/acbr.50170444.
- (ii) Primary Dystonia and Hypoceruloplasminemia Caused by Digenic Mutations in *GNAO1* and *CP* Gene from Eastern India: A Case Report. International Journal of Clinical Studies & Medical Case Reports. 2025. DOI: 10.46998/IJCMCR.2025.50.001236.
- (iii) Genetic Variants and Alteration in *Transcription Factor 7-Like 2 (TCF7L2)* mRNA level in Ischemic Stroke Patients: An Indian Scenario. Biochemical Genetics 2025. doi:10.1007/s10528-025-11237-6.
- (iv) Association of the rs738409 polymorphism in *PNPLA3* with development and severity of non-alcoholic fatty liver disease in ethnic Bengali population of West Bengal. Indian Journal of Endocrinology and Metabolism. 2025 (Accepted).
- (v) Myotonic Dystrophy Type 1 - An Atypical Presentation". Ann Indian Acad Neurol. 2024.
- (vi) Childhood Onset Recurrent Ischemic Stroke and Seizure are Associated with Mutation in *Adenosine Deaminase Type 2 (ADA2)* Gene. Annals of Indian Academy of Neurology. 2025 (Accepted).
- (vii) Identification of Mutation in Sick cell Anaemia by Amplification Refractory Mutation System Polymerase Chain Reaction. The Journal of Medical Sciences. 2025 (Accepted).
- (viii) A study on Movement Disorder Profiles among the Paediatric and Adolescent Population with Rare Diseases from Eastern India (Under review).
- (ix) Genetic Association of *Transcription Factor 7-Like 2 (TCF7L2)* with Coronary Artery Disease among Metabolic Syndrome Cases. Indian Journal of Clinical Biochemistry (Under review).