



***Professor Sheffali Gulati***

**MBBS (Gold medalist; AIIMS), MD (AIIMS), FRCPCH (UK), FAMS, FIAP, FIMSA, FNASc, FIANS**

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**Highlights**

Elected as fellow of Royal College of Pediatrics and Child Health; UK, October, 2021

Faculty In-charge, Child Neurology Division (April 2008 onwards)

*Co-founder of DM pediatric Neurology program in South Asia 2004)*

*Program director, DM Pediatric Neurology Program (April 2008 onwards;*

Faculty In-charge, Centre of Excellence and Advanced Research for Childhood Neurodevelopmental Disorders (December 2017 onwards)

*Department of Pediatrics, All India Institute of Medical Sciences, New Delhi*

*Adjunct Faculty, National Brain Research Center (NBRC), Manesar*

INSAR (International Society for Autism Research), Founder and Global Senior Leader for India 2021-

Editor of Autism (Only Asian), Sage journals (Journal impact factor 6:684, 5-year impact factor 7.525) 2022-

Member, ILAE Equity, Diversity and Inclusion Task Force 2023-

National Delegate-India & Executive Board Member, Asian Oceanian Child Neurology Association (AOCNA)

President, 17<sup>th</sup> Asian Oceanian Congress of Child Neurology (AOCCN) 2025

*President, Association of Child Neurology, India 2023-2025*

Founder, Member, Association of Child Neurology, 2002

*Convenor, Pediatric subsection, Indian Academy of Neurology 2023-*

*Advisory Board Member, Academy of Pediatric Neurology, IAP 2019*

Chairperson, Academy of Pediatric Neurology, Indian Academy of Pediatric (IAP), 2021

National Guidelines Coordinator, Academy of Pediatric Neurology, IAP

*Founder Chairperson, AOPN, Delhi 2023*

Executive Board Member, Indian Epilepsy Society, 2021-2023; 2023-

Co-Convenor, Pediatric Epilepsy Subsection, Indian Epilepsy Society 2021-2023

Member, Advisory board ICNTN, Coordinator, Neurodevelopmental disorders module ICNTN (ICNA)

*Vice-Chairperson, Technology Governance Steering committee for Healthcare, All India Council for Robotics and Automation (AICRA)*

Advisory board member & Lead coordinator for Neurodevelopmental disorders modules- International Child Neurology Teaching Network (ICNTN) of the ICNA (International Child Neurology Association)

Site lead - Indo-Canadian Autism Network (I-CAN): for collaboration in academics, clinical and research areas of autism spectrum disorder and actively involved in the diagnostic evaluation and research sub committees.

Nominated as Indian Co-ordinator for DST's Indo-Israel women conference on Women Medicine 2023 by DST

Expert member of International consortium on dietary therapies (core KDT).

Expert member of International Expert Panel for consensus in diagnosis and management of children with Sydenham chorea. Member of DM curriculum committee and also guidelines development group of Indian Academy of Neurology

- **Co-founded the first DM Pediatric Neurology Program in South Asia in 2004;** heading DM program since April 2008; 52 students have completed the DM program and 11 are under training. She has contributed towards establishing of this DM program in 5 more institutes, Fellowship in Pediatric Neurology across India, and SAARC countries and now Doctorate National Board.
- Has over 30 years teaching/work experience; has developed Pediatric Neurology in India as a specialty; received many International/ National awards for her efforts in this field.
- Has developed this specialty in academics, clinical care (laboratory investigations), patient education/ awareness, research, advocacy, and public health domains.
- Envisioned, conceptualized and faculty in-charge of Centre of Excellence and Advanced Research for Childhood Neuro-developmental Disorders which is providing high quality affordable care for all sections of the society, performing high end diagnostic and therapeutic research, and acting as an education and a training hub.
- National Child Neurology Helpline (24X7; toll free) and Tele- Consultation Services for Childhood Neurodevelopmental Disorders have been launched on 12<sup>th</sup> April 2018.
- Part of team led by Dr Deepak Gupta and Dr Ashok Kumar Mahapatra, which successfully separated 28-month-old twins Jagga and Kalia, who were joined to each other at the cranium: featured in the 2020 edition of Limca Book of Records.
- Ashwini B, Jainendra Shukla, and Sheffali Gulati, “A System and Method for Identifying the Automated Speech Behaviour in Hindi-Speaking Children with ASD,” 2024. (Indian Patent Application Number 202411038008, Filed, May 14, 2024)
- **Editor (1) Autism, Co-editor/Associate Editor (1)** Indian journal of Developmental and Behavioural Pediatrics **Associate editor (3)** in Child & Adolescent Psychiatry Section of Frontiers in Psychiatry, Associate editor in Children & Health Specialty Section of Frontiers in Public Health and Frontiers in Pediatrics and Attended Frontiers Editor's summit. **Section Editor(1)**, Epilepsy Neurology- Neurology India
- **Editorial Board member (6)**
- **Weekly webinars: Have been organizing weekly webinars in collaboration with AOCN, India every Wednesday 8 to 930 pm on various aspects of pediatric neurology across 9 special interest groups which I have created with global participation both as faculty and attendees. They are**

**being recorded and posted on AOCN you tube channel for continuing viewership. Zoom Attendance of these >60 webinars has been around 12,000 from across 65 countries**

- 470 publications in International and National journal; Highest Impact Factor: 96.2, Maximum citation:684; Citations-7972; H-Index-40; i10-index-171; (in top 3% researchers globally).
- Edited 1 book; Assisted in editing book: 1; Section editor 2; Chapters in book: 140; Abstracts>600; Educational books/ learning resource material: >60; Delivered more than 600 invited talks: International / National

### **Awards & Recognition**

- Received as Eminent Women Scientist for Academic contribution in the field of Medicine for National Academy of Medical Sciences (NAMS, India) “Women in Medicine Award for the year 2024.
- Part of team AIIMS, New Delhi awarded “Best Brain Stem Death Certifying Team for North Region” at the 14<sup>th</sup> Indian Organ Donation Day (IODD) event 2024.
- Part of Compass Consortium; 2024 INSAR Cultural Diversity Award
- American Academy of Neurology, A.B. Baker Teacher Recognition Award 2024: Excellent teachers deserve recognition for their contributions to improving neurology now and in the future. Teaching binds students, residents, faculty, other clinicians, researchers, and even patients, together and helps make our daily work more meaningful. This award demonstrates respect and appreciation for neurologic teaching.
- Fellow National Academy of Science, India 2023
- Fellow, Indian Academy of Neurosciences, 2023
- Honorary Distinguished Fellow, Global Association of Physicians of Indian Origin (GAPIO) in recognition of contribution to healthcare in field of Child Neurology.
- Dr I A Modi Award (Distinguished Clinician), 2024 – Global Association of Physicians of Indian Origin (GAPIO) for pioneering contributions in Pediatric Neurology in India advancing the field through clinical excellence, research and education .
- Adjunct Faculty, National Brain Research Center (NBRC), Manesar
- National Women Bio-scientist (Senior Category) Award, DBT 2021-2022 (Declared in 2023) recognition as a senior women scientist for her lifetime contributions performing excellent research in the country with potential benefit for students and scientists.
- National Women Bio-scientist (Senior Category) Award, DBT 2021-2022 (Declared in April 2023) for recognition as a senior women scientist for her lifetime contributions performing excellent research in the country with potential benefit for students and scientists.
- Editor of Autism, Sage journals (Journal impact factor 6:684, 5-year impact factor 7.525)
- Elected as fellow of Royal College of Pediatrics and Child Health; UK, October 2021.
- “National Award for outstanding efforts in Science & Technology communication through innovative & traditional methods”. from the Department of Science & Technology on National Science Day, 28<sup>th</sup> February 2021
- Sheila Wallace Award (First Indian recipient) by International Child Neurology Association (May 2014) for excellence of the CV and substantial contributions made in Child Neurology; delivered plenary lecture: - Establishing a program for Neuro- developmental disorders in resource constrained settings: Opportunities and challenges in International Child Neurology Congress, Iguazu falls, Brazil.
- AIIMS Excellence Research Award 2020 (Conferred 2022) for the research titled- “Efficacy of

Ketogenic Diet, Modified Atkins Diet, and Low Glycemic Index Therapy Diet Among Children with Drug-Resistant Epilepsy: A Randomized Clinical Trial”.

- Chairperson, Academy of Pediatric Neurology, IAP 2021 got the best specialty chapter award (3<sup>rd</sup> prize) for 2021 of Indian Academy of Pediatrics
- Lifetime Achievement Award, Child Neurology Chapter of Indian Academy of Pediatrics, Oct 2014 for invaluable services rendered for the development of Pediatric Neurology in India and historical and memorable attainments in this field.
- Received 2<sup>nd</sup> best poster award for Digital Health & Medical Education poster on AIIMS 66<sup>th</sup> Institute Day exhibition September 2021
- AIIMS Excellence Research Award 2019 for Clinical Research on Development and validation of a DSM5 based Diagnostic tool for ASD, (conferred in Sep 2020).
- President, Association of Child Neurology, India, 2023-25.
- Chairperson, Academy of Pediatric Neurology IAP
- Executive Board Member, Indian Epilepsy Society
- Only Asian Expert selected for Elicitation Board Expert Group for Autism Spectrum Disorder, France
- Co-Convenor, Pediatric Epilepsy Subsection, Indian Epilepsy Society
- Member DM curriculum committee and National Guidelines committee of Indian Academy of Neurology.
- Awarded Atal Swasthya Bhushan Samman 2019 for her extraordinary services extended through clinical practice.
- Award by Pediatric Neurology Chapter of IAP, in recognition of outstanding contribution in the field Pediatric Neurology and Commendable devotion and hard work to Pediatric Neurology Chapter of IAP (Neuropedicon 2019)
- Advisory Board Member, Academy of Pediatric Neurology, IAP 2019
- AIIMS Excellence Research Award 2018 for Clinical Research titled “Development of All India Institute of Medical Sciences-Modified International Clinical Epidemiology Network Diagnostic Instrument for Neuromotor Impairments in Children Aged 1 Month to 18 Years”
- 6<sup>th</sup> Dr I C Verma Excellence in Research Award 2018 by The Dr K.C Chaudhuri Trust & Indian Journal of Pediatrics for research in the field of Child Neurology in India
- Amrut Mody Unichem Prize-2015 by Indian Council of Medical Research (ICMR), New Delhi for research in Epilepsy and Neurodevelopmental Disorders conferred in October 2017
- AIIMS Excellence Research Award 2017 for Clinical Research titled “Development of validation of AIIMS modified INCLEN diagnostic instrument for epilepsy in children aged 1 month-18 years.”
- Dr. S. Janaki Memorial Oration by National Academy of Medical Sciences October 2016 in recognition of outstanding contribution in the field of Child Neurology and delivered oration on: - Neurodevelopmental disorders: The Journey, The Dreams and Their Realizations and felicitated with a gold medal.
- Fellow, National Academy of Medical Sciences 2016
- AIIMS Excellence Research Award in the Clinical Research category in September 2014 for 2013-14: Neurodevelopmental and epilepsy outcome in children aged one to five years with infantile spasms- A North Indian cohort.
- Fellow, Indian Academy of Pediatrics, International Medical Science Academy, National Academy of Medical Sciences
- ISNS Bursary Award, for International Symposium on Neonatal Seizures and related Disorders April 2011,

- Fellowship Award by Vice President of Research & the Faculty of Medicine of McGill University 2006 and International Child Neurology Association 2010,
- Founder Member, Association of Child Neurology
- Dr Sarla Vaishnav award, 1995 for the thesis-based research paper entitled “A clinico-biochemical probe into suspected neurometabolic disorders.”
- Dr. Satyanand gold medal for being the best undergraduate in Psychiatry, 1992
- Sardari Lal Kalra gold medal for being the best undergraduate in Microbiology, 1990
- National Talent Search Examination scholarship holder 1986 to 1996
- Junior Science Talent Scholarship holder 1985

### **Academics/Teaching and training**

- Part of team to establish first DM (Pediatric Neurology) program in South Asia in 2004 (52 alumni students and 11 students currently undergoing the course)
- Mentored PhD (at AIIMS, NDRI, Gurgaon and IIT Kanpur), Short term trainees 18 (from India, USA, Bangladesh, Nepal, Sri Lanka, Kenya, Norway, Srinagar), MD (Pediatrics), MBBS, MSc and BSc Nursing
- Guide in thesis in the field of Child Neurology: 23 PhD, 56 MD/MS, 82 DM thesis.
- 42 students/ collaborators have been awarded various National/ International awards for work mentored/ collective work done.
- Examiner/Reviewer of various thesis of MD, DCH, DM PGI Chandigarh, MTech. IIT, Delhi, Fellowship in Pediatric Neurology and PhD from various Indian and Nepal colleges and universities
- Visiting faculty at various prestigious institutes
- Organized many training programs/ CME/ conferences
- Innovations in teaching
  - Telemedicine AIIMS: Lectures for Pan African network and various Indian medical colleges
  - Website ([www.pedneuroaiims.org](http://www.pedneuroaiims.org)) has got educational material including audiovisuals for clinicians on various neurodevelopmental disorders and now has been made interactive.
- Pedneuroaiims Diagnostics: Free Mobile app for diagnosing Autism, epilepsy, ADHD, neuromotor impairments
- E-learning modules in Child Neurology (<https://pedneuroaiims.chalopadho.com>)
- Remedial intervention programme for Specific Learning Disability (SLD) – An artificial intelligence based web page application developed, validated and launched. <http://readabled.com>.
- Neuro-pharmacopeia a drug book for Pediatricians; currently being revised and being converted to a mobile friendly form.
- Neuropedicon 2018 proceedings on YouTube
- QR code: epilepsy webinar, epilepsy booklet, financial advocacy rare disease webinars (DMD and SMA), national epilepsy guidelines and ketogenic diet therapies.
- 30 webinars in collaboration with AOCN, India with over 4449 attendees from over 40 countries and available on YouTube

### **Clinical services**

- Has established a Comprehensive tertiary Pediatric Neurology Care Service

- Five Specialty Clinics besides routine OPD services: Development, Neurocysticercosis, Pediatric Neurology, Autism, Neuromuscular disorders; annual attendance is over 25,000.
- Clinical services: Outpatient, Day Care, In-patient, High Dependency Unit
- Established Pediatric Electrophysiology lab services in the year 2000. Over 4000 patients done annually including polysomnography.
- Neuromodulation: Transcranial magnetic stimulation established and working in area of refractory epilepsy and hemiplegic CP, dystonia, autism spectrum disorder and specific learning disability. rTMS SOP manuals have been developed.
- Various Neuropsychological tests, cognitive and developmental assessment
- Other investigations: OAE, muscle/ nerve/skin biopsy, CSF, and blood lactate/anti-measles/ autoimmune, Neostigmine challenge test, forearm ischemia test, handheld dynamometry,
- Neuro-intensive care: ambulatory continuous EEG monitoring, ambulatory NCS, Intracranial pressure monitoring,

### **Patient education/ awareness**

- Developed various patient education materials (Hindi/ English/ DMD patient information material has been translated in many regional languages in September 2023.): on Epilepsy and neuro-developmental disorders; freely available on the AIIMS website link.  
 ✓ <http://www.pedneuroaiims.org>  
 ✓ In addition to print version available in OPD/clinics/wards.  
 ✓ Developed Seizure card and training video on importance of domiciliary acute care of seizures, developmental stimulation, constraint induced movement therapy, bilingual posters on Epilepsy (website)  
 ✓ Website (www.pedneuroaiims.org) has got educational material including audio-visuals for parents  
 ✓ Email/help line was initiated in 2013.  
 ✓ Mobile help line for autism was launched in April 2015 and now in December 2015 converted into Pediatric Neurology help line.  
 ✓ National Child Neurology Helpline (24x7; toll free) and Tele- Consultation Services for Childhood Neurodevelopmental Disorders have been launched on 12<sup>th</sup> April 2018 and caters to on an average 29 calls everyday.  
 ✓ Have been organizing Public Health lectures on developmental disabilities, autism, epilepsy, cerebral palsy, brain health and neurofibromatosis for parents.  
 ✓ Have been involved in generating parent and public awareness through print and audiovisual media

### **Extracurricular activities (health camps, TV or radio Talks, talks on health issues to lay public)**

- Participated in camps for children with special needs and those with neurological problems. Through print and audiovisual media spreading awareness about various neurological and neurodevelopmental disorders with focus on de-stigmatization.
- Running a toll free 24x7 Child neurology tele-helpline and teleconsultation services.

- **Outreach Webinars: Financial Advocacy for Rare Diseases–With support from Global Genes Alliance.** A total of 20 webinars were conducted from 10<sup>th</sup> August to 3<sup>rd</sup> September 2022. The webinar sessions were graced by 128 panelists, which included, senior and reputable pediatric neurologists from India, Sri Lanka, Malaysia, and United Kingdom; policy makers from Government of India, ICMR, DBT, DST; pharma leaders representing Novartis (India and Switzerland), Roche (India), PPD (Australia, USA), PTC (USA); various crowdfunding (Impact Guru and Ketto) and non-government organizations (NGOs).
- **Ketogenic Diet Workshop – A therapeutic model.** A workshop was conducted on 12<sup>th</sup> April 2023, highlighting the importance on ketogenic diet therapies and thenewer modifications in the diet recipes. Our division has been doing active research and has experience of more than 15 years with these forms of dietary therapies. We have formulated a dietary network for professionals which includes dietitians, pediatricians, and pediatric neurologists from all over the country. On this occasion, a book was released, which provides the readers with basic details regarding the various diet therapies, their indications, contraindications, precautions, preliminary investigations, follow-up and more importantly diets which can be made from native recipes. The diet plans have evolved with experience over the last 17 years. This is a second revision of the dietary therapy resource, in which special diets based on millets were introduced for the first time. Another revision with recipes from cuisines across India was released in International Epilepsy Congress, Dublin September 2023
- We plan to develop a state-of-the-art early childhood development and neurorehabilitation centre to cater to the needs of children with neurodevelopmental impairment (***Holding hand in magical years: early childhood development & neurorehabilitation centre***), in collaboration with ***The Hans Foundation***, who will be providing the financial support, with the objectives of – (i) To ensure early and appropriate diagnosis followed by provision of comprehensive therapeutic packages to children (0-18 years) with neurological and neurodevelopmental disorders including Autism, Cerebral Palsy, ADHD and SLD and others, (ii) To integrate screening and diagnostic tools for the diagnosis of neurodevelopmental disorders with artificial intelligence-based applications to provide intervention measures to children who are far off from the facility, (iii) To upgrade the national training-cum-resource centre for the empowerment of professional and parents being run by Centre of Excellence and Advanced Research for Childhood Neurodevelopmental Disorders, Child Neurology Division, Department of Paediatrics, AIIMS, New Delhi
- In another project in collaboration with the ***World Health Organisation***, we plan to create a feasible working model of early screening and identification of children with developmental difficulties and neurodevelopmental disorders (Developmental Screening of children in primary health care setting and establishing referral pathways to early intervention services), with the objectives of – (i) To screen and identify children with developmental difficulties, who present to HWCs, PHCs and CHCs for routine health check-up or for any other minor ailments, using developmental screening tools like AIIMS modified version of ASQ-3 (Ages & Stages Questionnaire – 3), NDST (Neuro-Developmental Screening Tool), and diagnostic tools like DASII (Developmental Assessment Scales for Indian Infants), WPPSI-IV (Wechsler Pre-school and Primary Scale of Intelligence – IV) and VSMS

(Vineland Social Maturity Scale), (ii) To develop a model of screening and identifying children early with developmental difficulties in HWC, PHC and CHC settings and then referring them to DIECs and DISHA centres for further diagnosis and intervention measures, to form a network between the rural setting and district-based centres.

### **Research**

- Involved in research projects on diverse areas of Pediatric Neurology at International and National level (NIH, Autism speaks, MRC, UK, DBT, ICME, DST, UNICEF, WHO, National Trust USAID, MOHFW; AIIMS-UCL) which have led to advocacy and innovations.

#### **▪ *Research to Advocacy***

- These tools are being used in the National Program “Rashtriya Bal Swasthya Karyakram of Ministry of Health and Family Welfare (MOHFW)
- The tool developed for diagnosing Autism has been notified for use in certification of Autism by GOI, Ministry of Social Justice and Empowerment (MOSJE)
- Part of the team that submitted proposal for National Epilepsy Control Program to MOHFW
- Expert in International group for launching of a Global Action for Autism, Dhaka, September 2014; SAARC Group 2011, 2014, 2017.
- National Coordinator to train master trainers in Autism across India besides tool developed notified for certification of autism 2016 onwards. Organized 4<sup>th</sup> National workshops for the same now starting an e-certification course for the ministry.
- First certificate for Autism given in India at AIIMS on 28<sup>th</sup> April 2016
- Organized National conference on Autism and conducted Autism marvel hunt (with National trust on 3<sup>rd</sup> April 2017)
- Chairperson of subcommittees on Developmental disorders and chronic neurodegenerative disorders, Certification as Disability
- Member of Central Technical Committee of Rare disease, Government of India and co-ordinated treatment modules for Neuromuscular Disorders.
- Auto-disabled syringes were introduced in Universal Immunization Program, MOHFW
- Biomedical waste management in India has been revolutionized.
- Tools have been incorporated in Rashtriya Bal Swasthya Karyakram
- Strategic framework document for children with developmental difficulties (MOHFW)

#### **▪ *Research to Innovations***

- Mobile application Pedneuroaiims Diagnostics: Mobile app for diagnosing Autism, epilepsy, ADHD, neuromotor impairments (freely available on google and apple play store)
- Various Dietary therapies based on local diets for intractable epilepsy.
- Seizure card: Domiciliary management of acute seizure
- Telephone based consultation for epilepsy: National Child Neurology Helpline (24X7; toll free) and Tele- Consultation Services launched.
- Weighted compression vest for hyperactivity besides Mobile app for diagnosis



- Skin biopsy can possibly replace muscle biopsy in diagnosis and follow-up in muscle dystrophies.
- Remedial intervention program for Specific Learning Disability (SLD) – An artificial intelligence based web page application developed (<http://readabled.com>.)
  
- We are working in collaboration with **Centre for Advanced Computing (CDAC)** who will be developing an AI driven Deep learning model (A Brain Machine Interface enabled assistive system for children with special needs) with for multilingual and multimodal BMI interface for communication by brain signal. The BMI command interface would be available in two interactive forms – Standalone and Web-based interface. It would support an audio integrated standalone system to cater the basic requirement of dependent persons like – requirement of food, change in posture and daily routine needs. It would be enriched with a p300 odd-ball paradigm based BCI web browser with a speller of English and Devanagari Script support. The objective of the proposed work is to design, develop and deploy a Computational framework as a Brain Machine Interface enabled Assistive communication system for persons with special needs. It covers the aspects of thematic areas right from core research to multidisciplinary neuro-cognitive computing for medical science for betterment of life.
  
- **Center of Excellence & Advanced Research for Childhood Neurodevelopmental Disorders**
  - Development of a National Registry for Childhood Neurodevelopmental Disorders
  - National Knowledge and Training Center for Childhood Neurodevelopmental Disorders
  - Childhood Neurodevelopmental Disorders: Advanced diagnostics
  - Childhood Neurodevelopmental Disorders: Advanced Therapeutics/Rehabilitation
  - Establishment of Child Neurology Helpline and Teleconsultation Services

*{Funded by AIIMS Grant in aid (supported by Ministry of Health and Family Welfare) and India Infrastructure Finance Company Limited (IIFCL) as a part of its Corporate Social Responsibility (CSR)}*
  
- **Domain specific research projects**
  - **Multi-centric international collaboration with Universities of Stanford, Pennsylvania, Wisconsin: Neuro-developmental Disabilities among children in India: An INCLEN study (funded by NIH, Autism speaks, National Trust) Site- PI, Network coordinator.**
  - Developed & Validated culture sensitive Diagnostic Instruments for Autism, ADHD, Epilepsy; Cerebral Palsy and a 12 question Neurodevelopmental Screening tool. Prevalence data for these disabilities has been obtained for the first time in India.
  - **Five collaborative studies: Further developing and validating tools for screening and diagnosing neurodevelopmental disorders.** The above tools have been modified further as per latest guidelines and the age range broadened (up to 18 years) and revalidated:
    - ✓ *Screening tool: ASQ for the age up to 24 months*
    - ✓ *Diagnostic tools for autism, epilepsy, ADHD and neuromotor impairments including cerebral palsy and ASD Infant screening tool: AIIMS.*
  - **Epilepsy: Multiple collaborative studies Over 120 indexed publications (including 1 in NEJM and 2 in JAMA Pediatrics)** Acute control of seizures; West syndrome; febrile seizures, Phenytoin

and gingival overgrowth; PNEE, status epilepticus, ESES, epilepsy surgery work up, RCT in Neurocysticercosis, biomarkers in calcified NCC, bone mineral densitometry, pharmacogenomics; trace elements; telephone based follow up in NCC, west syndrome and LGS; autoimmune disorders; Quality of life; Difficult to treat epilepsy, Analysis of neural networks underlying west syndrome using Functional MRI and their correlation with response to therapy; More than 13 publications assessing role of various dietary therapies in epilepsy in multiple studies; Recently completed RCT to compare KD vs MAD vs LGIT is the first study to compare these three dietary therapies (JAMA Pediatrics); LGIT (intermittent) RCT, Expert member of CORE-KDT international research group besides Epilepsy diagnostic tool (mobile app: pedneuroaiimsdiagnostic); Early Vs Late epilepsy Surgery (NEJM), FIRES (in collaboration with UCL), Biomarkers in ESES. Focal intractable epilepsy, ESES: role of TMS, AI in electro-encephalography.

- **Autism:** Multiple International and National collaborative studies, Global Senior Leader for INSAR, Site leader of Indo-Canadian Autism Network (ICAN), Editor for Autism, Sage Journal
- ✓ *PI: Blood heavy metal levels and quantitative EEG; training modules; weighted compression vest; gut flora; Advanced paternal age and poor lifestyle on sperm epigenome: possible etiology in ASD; pathways to cure for ASD; Health related quality of life of children (aged 3-12 years); Vitamin D and trace elements; polysomnography; depression in mothers besides DSM 5 based diagnostic tool; Autism diagnostic tool (1-18 months), Mobile platform; Emotion recognition and social behavior, Autism and oxidative biomarkers, Probiotics, Alternative Augmentative Communication, Artificial Intelligence, Nanotechnology: exosomes in ASD mice, Robotics, Brain Machine interface and transcranial magnetic stimulation, dietary therapies in Autism and management on Sleep disorders in children with ASD.*
- **Neuromuscular Disorders**
  - ✓ *PI 4 RCTs*
  - ✓ *Ataluren for DMD: A Phase 3, Randomised, Double blind, Placebo- controlled efficacy and safety study of Ataluren in patients with non-sense mutation Duchenne Muscular Dystrophy and Open label extension.*
  - ✓ *A Randomized, Double-Blind, Dose Finding and Comparison Study of the Safety and Efficacy of a High Dose of Eteplirsen, Preceded by an Open- label Dose Escalation, in Patients with Duchenne Muscular Dystrophy with Deletion Mutations Amenable to Exon 51 Skipping.*
  - ✓ *Zolgensma for SMA aged 2-18 years: A randomized, sham-controlled, double-blind study to evaluate the efficacy and safety of intrathecal (IT) OAV101 in patients with later onset Type 2 spinal muscular atrophy (SMA) who are  $\geq 2$  to  $< 18$  years of age, treatment naive, sitting, and never ambulatory.*
    - ✓ *Exon skipping 43, 51 and 53 in DMD.*
    - ✓ *Coordinating Spinraza Humanitarian Access program (n-47)*
    - ✓ *1st Genethrapy (Zolgensma) for SMA administered in May 2020 (n-21)*
    - ✓ *Risdiplam (n-09)*
- **Cerebral palsy**
  - ✓ *Constraint induced movement therapy, FMRI based mCIMT, Structured weight bearing, heavy metals and cerebral palsy, quality of life besides diagnostic tool. Virtual reality reinforced Modified Constraint Induced Movement Therapy, Sensory Profile and Sensory Integration; rTMS and Modified CMT, r TMS in dystonia.*

- **ADHD and Specific learning disability**
- ✓ *Blood trace elements and vitamin D in ADHD, Quantitative EEG, Polysomnography, Remedial Intervention Programme in SLD, artificial intelligence being studied.*
- **Other Multi-centric international studies**
- *Site PI: Ataxia Telangiectasia- Intra- Erythrocyte Dexamethasone; Site PI: Rett Syndrome-Sarizotan; Co investigator: Development & validation of a scalable mobile platform for screening of developmental neuropsychiatric disorders in low-resource settings (MRC, UK); Site PI: Communication-centered, Parent- mediated treatment for autism spectrum disorder in South Asia (COMPASS). SitePI: 2 RCTs of Lasmiditan and Galcanezumab in migraine*
- Phase 3, 12-Month, Open Label Study of Lasmiditan in Pediatric Patients with Migraine-PIONEER-PEDS2
- Pediatrics Options for Migraine Relief: A Randomized, Double-Blind, Placebo- Controlled Study of Lasmiditan for Acute Treatment of Migraine: PIONEER PEDS1
- Randomized, Double-Blind, Placebo-Controlled Study of Galcanezumab in Patient 6 to 17 Years of Age with Episodic Migraine- the REBUILD-1 Study
- To explore the Association of Molecular, Genetic & Environmental Markers in Autism Spectrum Disorders & other Neurodevelopmental Disorders Including ADHD & CP: A Cross Sectional Study.
- A Brain Machine Interface enabled Biomedical Assistive Communication System for severely motor disabled.
- A Phase 2B, Multicenter, 30-week, Prospective, Cross-over, Double-blind, Randomized, Placebo-controlled Study Followed by a 52-week Open-label Extension Study to Evaluate the Efficacy and Safety of Basimglurant Adjunctive to Ongoing Anticonvulsive Therapy in Children, Adolescents, and Young Adults with Seizures Associated with Tuberous Sclerosis Complex.
- A Phase III Multicenter, Randomized, Double-Blind, Double-Dummy Study to Evaluate Safety and Efficacy of Ocrelizumab in Comparison with Fingolimod in Children and Adolescents with Relapsing-Remitting Multiple Sclerosis.
- **Other National Multi-centric studies**
- Assessment of Injection Practices in India: An INCLEN Program Evaluation Network study (World Bank; MOHFW) CCT member; Model Injection Centers: An INCLEN study (funded by USAID) Site PI, CCT member.

### **Research Publications**

- 470 publications in International and National journal; Highest Impact Factor: 96.2, Maximum citation: 684; Citations-7972; H-Index-40; i10-index-171; (in top 3% researchers globally).
- Edited 1 book; Assisted in editing book: 1; Section editor 2; Chapters in book: 140; Abstracts>600; Educational books/ learning resource material: >60; Delivered more than 600 invited talks: International / National

Google Scholar Link –

<https://scholar.google.co.in/citations?user=9jAUUvkAAAAJ&hl=en>

Link for List of publications:

[https://drive.google.com/file/d/1rRU8s81nKqPSL43CPgDsnG-Z\\_Y0H18bO/view?usp=sharing](https://drive.google.com/file/d/1rRU8s81nKqPSL43CPgDsnG-Z_Y0H18bO/view?usp=sharing)

*Link for list of books and chapters:*

<https://drive.google.com/file/d/1HmbqyzmPObypzaXcaSzMz5ecFYuV3YuK/view?usp=sharing>

**Has developed 4 Networks of professionals working** on Autism spectrum disorders, Spinalmuscular atrophy, Dietary therapies in child neurology and FIRES

*Expert for various committees/ other recognition*

- Ministry of Health and Family Welfare various committees including COVID-19 and rare diseases (Central Technical Committee of Rare Disease, National Committee for Autism Spectrum Disorders, National policy on Toxins in health)
- ICMR: Rare Disease, genetics and registry.
- Representative of MOHFW for reviewing National Trust Act Amendment
- Ministry of Social Justice and empowerment various committees: Chairperson, Expert Committee meeting on Categorization of Special Needs Children and chronic neurological disorders.
- National trust: National Coordinator for training master trainers in Autism tools; early intervention
- Ministry of Women and Child Development, active in various committees
- Expert of the IAP, WHO, UNICEF Early childhood development program, Global Research on Developmental Disabilities Collaborators (GRDDC), Lancet commission on Covid 19; Academic committee of Fellowship program and Journal committee of Neurodevelopmental Chapter of IAP, National board in Pediatric Neurology, National List of Essential Medicines, Indian pharmacopeia mission, DCGI, Signal review panel, National Formulary of India, Biotechnology Industry Research Assistance Council, UGC expert, WHO, Consortium of Academia and Industry for capacity building, faculty recruitment for various hospitals and universities, for Developing and updating Guidelines for diagnosis and management of Childhood epilepsy, Expert for developing Framework for Convergent action towards comprehensive care of children with difficulties (MOHFW) Member of ICMR Project Review Group, ICMR Task Force, co-chair neuromuscular disorders in rare disease consortium, stem cell guidelines, DBT Technical Expert Committee (TEC), NMC expert group including of stem cell guidelines, Neurology Expert Group, UNICEF:ECD task force, NCERT, CBSE, Child Neurology-Indian Epilepsy Society, Scientific Advisory Committee, Kerala University of Health Sciences, steering Cum Advisory Committee for Centre of Excellence on Early Childhood Development at Department of Psychology, Utkal University, National Level consultative Expert Group, National Advisory Board Member of Indian Rett Syndrome Foundation, National Advisory Board member of Indian Epilepsy Society
- Patron The Blessed Heart Foundation, 3<sup>rd</sup> International BMI Autism conference
- Nodal officer for AFP surveillance since 2000
- Chairperson, Board for disability assessment and certification.
- Organizing Secretary of Childhood neurodevelopmental disorders workshop 1-3

Dec2014

- Co-Organizer for Augmentative and Alternative Communication (2017 and 2020) course by Action for Ability Development and Inclusion (AADI)
- Organizing Secretary, Neuropedicon 2018, Annual Conference of Child Neurology Chapter of IAP; Scientific chairperson for Neuropedicon 2021 and its 5 pre-conference workshops October 2021

### **Reviewer of Projects**

- Medical research Council, UK; Indian Council for Medical Research, National Trust, DST, DBT, DGHS, Biotechnology Industry Research Assistance Council (BIRAC)

### ***Membership of Editorial boards of Journals***

- **Editor (Only Asian)**, Sage journals (Journal impact factor 6:684, 5-year impact factor 7.525.)
- **Review Editor** for Frontiers in Psychiatry: Child and Neurodevelopmental psychiatry (2011 onwards)
- **Associate editor** in Child & Adolescent Psychiatry Section of Frontiers in Psychiatry (Jan 2021 onwards) Associate editor in Children & Health Specialty Section of Frontiers in Public Health and Frontiers in Pediatrics (Jan 2021 onwards)
- **Editorial Board Member:** Journal of Special Education and Rehabilitation (2013 onwards); International Journal of Epilepsy: **Section Editor:** Pediatric Epilepsy (2013 - 2020) Editorial Board member (2021 onwards); Journal of Pediatric Neuroscience (2013 onwards), Behavioural Neurology (2014 onwards)
- **Editorial Board member of JRTDD (Journal for ReAttach Therapy and Developmental Diversities)**
- **Editorial Board member of Annals of Child Neurology**
- **Co-editor, Indian Journal of Developmental and behavioral pediatrics**
- **Editor (1) Autism, Co-editor/Associate Editor (1)** Indian journal of Developmental and Behavioral Pediatrics **Associate editor (3)** in Child & Adolescent Psychiatry Section of Frontiers in Psychiatry, Associate editor in Children & Health Specialty Section of Frontiers in Public Health and Frontiers in Pediatrics and Attended Frontiers Editor's summit. **Section Editor (1)**, Epilepsy Neurology- Neurology India
- **Editorial Board member** - Annals of Child Neurology, Neurology India

### **Reviewer of articles for the following Journals:**

- Journal of Autism and Developmental Disorders (JADD)
- WHO South-East Asia Journal of Public Health
- Acta Pediatrics
- Medical Science Monitor
- Pediatric Clinics of India

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- Indian Journal of Pediatrics
  - Indian Pediatrics
  - Neurology India
  - Indian Journal of Medical Sciences
  - Indian Journal of Clinical biochemistry
  - The National Medical Journal of India
  - Journal of Pediatric Infectious Diseases
  - Journal of Pediatric Neurology
  - Journal of Medical Case reports
  - American Journal of Medical Genetics
  - Journal of Pediatric Epilepsy
  - Journal of Pediatric Neuroradiology
  - BMJ open
  - Case Reports in Paediatrics
  - Journal of inherited metabolic disease
  - Journal of Bioscience and medicine
  - Frontiers in Neuropediatrics
  - Journal of Pediatric Neurosciences
  - Research in Developmental Disabilities
  - Journal of Special Education and Rehabilitation
  - International Journal of Epilepsy
  - Indian Journal of Medical Research
  - Medical Sciences
  - Journal of the Neurological Sciences
  - International Journal of Disability, Development and Education
  - Frontiers in Pediatrics
  - Child & Adolescent Behaviour
  - Annals of Indian Academy of Neurology
  - Annals of Medical & Health Sciences Research
  - Frontiers in Neurology
  - Journal of International Medical Research
  - Acta Neurologica Belgica
  - JICNA
  - Seizure
  - BMC Pediatrics
  - Journal of Post Graduate Medicine
  - Drug Research
  - BAOJ Neurology
  - Journal of Autism and Developmental disorder
  - Current Nutrition and Food Science
  - Journal of Emergency Medicine, Trauma and Surgical care
  - Meta Gene
  - Asian Journal of Psychiatry
  - Journal of Ophthalmology and Clinical Research
  - Journal of Genetics & Genomic Sciences
  - Journal of Child Science

- Epileptic disorders
- Scientific Reports
- Frontiers in Public Health
- Epilepsy Research
- Experimental Biology and medicine
- Bone
- PLOS one
- Developmental Medicine and Child Neurology
- eNeurological Sci
- International Journal of Molecular Sciences
- Iranian Journal of Pediatrics

**Examiner and Reviewer for MD/ DCH/ Fellowship/ DM/ PhD- 18 universities**

**Membership of Professional Bodies**

- Founder member, Executive Board Member, Life member of Association of ChildNeurology, 2004
- Executive Board Member of Child Neurology Chapter of IAP 2017
- Advisory Board Member, Academy of Pediatric Neurology, IAP 2019
- Chairperson, Academy of Pediatric Neurology, IAP, March 2021
- Guidelines Coordinator, Academy of Pediatric Neurology, IAP2022
- Co-Convenor, Pediatric subsection, Indian Epilepsy Society, 2020
- Executive Board member, Indian Epilepsy Society 2021
- INSAR global senior leader, INSAR 2021-
- Member, ILAE Equity, Diversity and Inclusion Task Force 2023-
- National Delegate – India (Asian Oceanian Child Neurology Association)
- Vice-Chairperson, Technology Governance Steering committee for Healthcare, AllIndiaCouncil for Robotics and Automation (AICRA)
- American Academy of Neurology
- European Pediatric Neurology Society
- American Epilepsy Society
- World Muscle Society
- Life member, member and fellow of more than 24 associations

**Contributions to International Associations**

*ICNA: Member for over 24 years, she was active member of Advisory board from AOCN for the ICNC 2018 at Mumbai. She is member of the Board of advisors of ICNTN (International Child Neurology Teaching Network) of the ICNA (International Child Neurology Association) and Faculty lead for Neurodevelopmental disorders in*

*childhood module. She organized series of Lectures “Pediatric Neurogenomics” as part of academic activities under the aegis of Centre of Excellence and Advanced Research in Childhood Neurodevelopmental Disorders in collaboration with CSIR-IGIB, International Child Neurology Teaching Network (ICNA) and ICMR-AIIMS Computational Genomics*

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*Centre. The recordings are on ICNTN website and [www.pedneuroaiims.org](http://www.pedneuroaiims.org). Working on comorbidities especially epilepsy in neurodevelopmental disorders*

**INSAR: Member for many years and Global senior leader for India since 2021;** has developed a network of over 261 Autism professionals across country and co-leading a DBT consortium on ASD. Focusing on comorbidities especially Epilepsy in ASD

She has developed Pediatric Neurology as a specialty in India and has been instrumental in transforming care of children with neurodevelopmental disorders pan-India by going e-way. Her contributions in the field of epilepsy, autism and other neurodevelopmental disorders are unmatched.

**Member, ILAE Equity, Diversity and Inclusion Task Force**

**National Delegate – India, Executive Board Member, Asian Oceanian Child Neurology Association & President 17<sup>th</sup> AOCCN**