



Professor Sheffali Gulati

MBBS (Gold medalist; AIIMS), MD (AIIMS), FRCPC (UK), FAMS, FIAP, FIMSA

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Highlights

Elected as fellow of Royal College of Paediatrics and Child health; UK, October, 2021
Chief, Child Neurology Division (April 2008 onwards)
Coordinator, DM Pediatric Neurology Programme (April 2008 onwards)
Faculty In-charge, Centre of Excellence and Advanced Research for Childhood Neurodevelopmental Disorders (December 2017 onwards)
Department of Paediatrics, All India Institute of Medical Sciences, New Delhi
Founder Member, Association of Child Neurology, 2002
Advisory Board Member, Academy of Pediatric Neurology, IAP 2019
Chairperson, Academy of Pediatric Neurology, Indian Academy of Pediatrics, 2021
Executive Board Member, Indian Epilepsy Society, 2021-2023
Co-Convenor, Pediatric Epilepsy Subsection, Indian Epilepsy Society 2020 -2022
INSAR (International Society for Autism Research) Global Senior Leader for India 2021-2023
President Elect, Association of Child Neurology, India 2023-2025

- Part of the team which started the first DM Pediatric Neurology Program in South Asia in 2004; heading DM program since April 2008; 42 students have completed the DM program. She has contributed towards establishing of this DM program in 5 more institutes, Fellowship in Pediatric Neurology across India and now Doctorate National Board.
- Has over 25 years post MD 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 Neurodevelopmental Disorders which is providing high quality affordable care for all sections of the society, performing high end diagnostic and therapeutic research and acting as a education and a training hub.
- National Child Neurology Helpline (24X7; toll free) and Tele- Consultation Services for Childhood Neurodevelopmental Disorders have been launched on 12th 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.
- 358 publications in International and National journal; Highest IF: 91.245, Maximum citation: 277; Citations: 4570

Awards & Recognition

- Elected as fellow of Royal College of Paediatrics 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, 28th 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
- 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 2nd best poster award for Digital Health & Medical Education poster on AIIMS 66th 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 Elect, Association of Child Neurology, India
- 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
- 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 1Month to 18 Years”
- 6th 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 INCLIN diagnostic instrument for epilepsy in children aged 1month-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

- 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 (Paediatric Neurology) program in South Asia in 2004 (42 alumni students)
- Mentored PhD (at AIIMS, NDRI, Gurgaon and IIT Kanpur), Short term trainees 18 (from India, USA, Bangladesh, Nepal, Srilanka, Kenya, Norway, Srinagar), MD (Pediatrics), MBBS, MSc and BSc Nursing
- Guide in thesis in the field of Child Neurology: 18 PhD, 41 MD/MS, 70 DM thesis
- 37 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, M.Tech. 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) 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>)
- Neuropharmacopeia a drug book for Pediatricians; currently being revised and being converted to a mobile friendly form
- Neuropedicon 2018 proceedings on youtube

Clinical services

- Has established a Comprehensive tertiary Paediatric Neurology Care Service

- Five Specialty Clinics besides routine OPD services: Development, Neurocysticercosis, Paediatric 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).
- Neuromodulation: Transcranial magnetic stimulation established and working in area of refractory epilepsy and hemiplegic CP and 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, hand held dynamometry,
- NeuroIntensive care: ambulatory continuous EEG monitoring , Ambulatory NCS, Intracranial pressure monitoring,

Patient education/ awareness

- Developed various patient education materials(Hindi/ English): on Epilepsy and neurodevelopmental disorders; freely available on the AIIMS website link
 - ✓ http://www.aiims.edu/en/paediat_sub_specialties.html?id=1648
 - ✓ <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
 - ✓ Have been organizing Public Health lectures on Developmental disabilities, Autism and Epilepsy for parents.
 - ✓ Have been involved in generating parent and public awareness through print and audiovisual media
 - ✓ National Child Neurology Helpline (24X7; toll free) and Tele- Consultation Services for Childhood Neurodevelopmental Disorders have been launched on 12th April 2018

Research

- Involved in research projects on diverse areas of Pediatric Neurology at International and National level which have led to advocacy and innovations
- **Research to Advocacy**
 - These tools are being used in the National Programme "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 4th National workshops for the same now starting a e certification course for the ministry.
- First certificate for Autism given in India at AIIMS on 28th April, 2016
- Organized National conference on Autism and conducted Autism marvel hunt (with National trust on 3rd April 2017)
- Chairperson of subcommittee on Developmental Disorders Certification as a Disability
- 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 app 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

▪ **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**

- **Multicentric International collaboration with Universities of Stanford, Pennsylvania, Wisconsin: *Neuro-developmental Disabilities among children in India: An INCLIN 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 (upto 18 yrs) and revalidated:
 - ✓ Screening tool: ASQ for the age upto 24 months
 - ✓ Diagnostic tools for autism, epilepsy, ADHD and neuromotor impairments including cerebral palsy.
- **Epilepsy: Multiple collaborative studies Over 100 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, besides Epilepsy diagnostic tool; Early Vs Late epilepsy Surgery (NEJM), FIRES (in collaboration with UCL), Biomarkers in ESES. Focal intractable epilepsy, ESES: role of TMS
- **Autism:** Multiple International and National collaborative studies
 - ✓ 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 yrs); 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 behaviour, Autism and oxidative biomarkers, Probiotics, Alternative Augmentative Communication, Artificial Intelligence, Nanotechnology: exosomes in ASD mice, Robotics
- **Neuromuscular Disorders**
 - ✓ PI 3 RCTs
 - Ataluren for DMD; exon skipping 43, 51 and 53 in DMD, Zolgensma for SMA aged more than 2 yrs; SMA: Coordinating Spinraza Humanitarian Access program: 1st Genetherapy (Zolgensma) for SMA administered in May 2020, Risdiplam
- **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 Multicentric 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-centred Parent-mediated treatment for Autism Spectrum Disorder in South Asia (COMPASS). Site PI: 2 RCTs of Lasmiditan and Galcanezumab in migraine

- Other National Multicentric studies

- Assessment of Injection Practices in India: An IndiaCLEN Program Evaluation Network study (World Bank; MOHFW) CCT member; Model Injection Centres: An IndiaCLEN study (funded by USAID) Site PI, CCT member

Research Publications

- Has 358 publications in International and National journal; Highest Impact Factor: 91.245, Maximum citation: 269; Citations: 4570; h-Index 31; i10-index 111
 - Abstracts 495
 - Edited 1 book
 - Educational books/ learning resource material: 55

Expert for various committees/ other recognition

- Ministry of Health and Family Welfare various committees including covid 19
- 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
- National trust: National Coordinator for training master trainers in Autism tools; early intervention
- Ministry of Women and Child Development 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, DBT Technical Expert Committee (TEC), MCI expert group, 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, 3rd 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 Dec 2014
- 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

- Review Editor- Frontiers in Psychiatry, Associate editor- Child & Adolescent Psychiatry Section of Frontiers in Psychiatry, Associate editor- Children & Health: Frontiers in Public Health and Frontiers in Pediatrics
- Editorial Board Member: Journal of Special Education and Rehabilitation (2013 -); International Journal of Epilepsy: Section Editor: Pediatric Epilepsy Editorial Board member; Journal of Pediatric Neuroscience; Behavioural Neurology; Journal for ReAttach Therapy and Developmental Diversities
- Reviewer of articles for more than 60 international/national journals

Examiner and Reviewer for MD/ DCH/ Fellowship/ DM/ PhD 16 universities

Membership of Professional Bodies

- Founder member, Executive Board Member, Life member of Association of Child Neurology, 2004
- Executive Board Member of Child Neurology Chapter of IAP 2017
- Advisory Board Member, Academy of Pediatric Neurology, IAP 2019
- Chairperson Elect, Academy of Pediatric Neurology, IAP, March 2020
- Co-Convenor, Pediatric subsection, Indian Epilepsy Society, 2020
- Executive Board member, Indian Epilepsy Society 2021
- Life member, member and fellow of more than 24 associations