

**Details of the research work duly signed by the applicant, for which the Sun Pharma Science Foundation Research Award is claimed, including references and illustrations (not to exceed 6000 words).**

- Dr. Shefali Gulati MBBS (Gold medalist; AIIMS), MD (AIIMS), FRCPCH (UK), FAMS, FIAP, FIMSA, joined AIIMS as an UG (1988), was part of the team which started the first DM Pediatric Neurology Program in South-Asia (2004), heading it since 2008.
- Her 42 students have completed the DM Pediatric Neurology program. She has contributed towards establishing of this program in 5 more institutes across India and also in Fellowships in Pediatric Neurology and now Doctorate National Board.
- Has over 25 years post MD teaching / work experience and has developed Pediatric Neurology in India as a specialty and has received many International and National awards for her efforts in this field.
- Has developed this specialty in academics, clinical care including laboratory investigations, patient education/ awareness, research, advocacy and public health domains
- Elected as fellow of Royal College of Paediatrics and Child health; UK, October, 2021
- 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

She envisioned, conceptualized and is faculty in-charge of Centre of Excellence and Advanced Research for Childhood Neurodevelopmental Disorders: providing performing high end diagnostic/therapeutic research, developing a National registry, National Child Neurology Helpline (24x7; toll free)/Tele- Consultation Services.

- 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: 18 PhD, 41 MD/MS, 70 DM thesis
- 35 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
- Innovations in teaching
  - Telemedicine AIIMS: Lectures for National/International networks
  - Website ([www.pedneuroaiims.org](http://www.pedneuroaiims.org))-educational material including audiovisuals for clinicians on various neurodevelopmental disorders/ 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
- Neuropedicon 2018 proceedings on youtube
- 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,

### Research publications

Has 358 publications in International and National journal; Highest Impact Factor: 91.245, Maximum citation: 277; Citations: 4570; h-Index 31; i10-index 111

- Abstracts 495
- Edited 1 book
- Educational books/ learning resource material: 55

Ten best publications

S.No	Journal Details	Year	Impact Factor	Citations
1	Sondhi, Vishal; Agarwala, Anuja; Pandey, Ravindra M; Chakrabarty, Biswaroop; Jauhari, Prashant; Lodha, Rakesh; Toteja, Gurudyal S; Sharma, Shobha; Paul, Vinod K; Kossoff, Eric; Gulati Sheffali ( corresponding) Efficacy of Ketogenic Diet, Modified Atkins Diet, and Low Glycemic Index Therapy Diet Among Children With Drug-Resistant Epilepsy: A Randomized Clinical Trial. JAMA Pediatrics 2020; 174(10): 944-951	2020	13.946	14
2	Gulati, Sheffali (corresponding); Kaushik, Jaya Shankar; Saini, Lokesh; Sondhi, Vishal; Madaan, Priyanka; Arora, NK; Pandey, RM. Jauhari, Prashant; Manokaran, Ranjith K; Sapra, Savita. Development and validation of DSM-5 based diagnostic tool for children with Autism Spectrum Disorder. Plos one 2019;14(3); e0213242	2019	2.740	10
3	Arora NK, Nair MKC, Gulati S, Deshmukh V, Mohapatra A, Mishra D, Patel V, Pandey RM, et al. Neurodevelopmental disorders in children aged 2-9 years: Population-based burden estimates across five regions in India. PLoS Med. 2018 Jul 24;15(7):e1002615. doi: 10.1371/journal.pmed.1002615. PMID: 30040859; PMCID: PMC6057634.	2018	10.500	84
4	Dwivedi R, Ramanujam B, Chandra PS, Sapra S, Gulati S, Kalaivani M, Garg A, Bal CS, Tripathi M, Dwivedi SN, Sagar R, Sarkar C, Tripathi M. Surgery for Drug-Resistant Epilepsy in Children. N Engl J Med. 2017 Oct 26;377(17):1639-1647.	2017	91.245	277
5	Sharma S, Sankhyan N, Gulati S (corresponding author), Agarwala A Use of the modified Atkins diet for treatment of refractory childhood epilepsy: a randomized controlled trial. Epilepsia. 2013 Mar;54(3):481-6.	2013	6.040	139
6	Arya R, Gulati S (corresponding author), Kabra M, Sahu JK, Kalra V. Intranasal versus intravenous lorazepam for control of acute seizures in children: a randomized open-	2011	6.040	79

	label study.Epilepsia. 2011 Apr;52(4):788-93			
7	- Arya R, Gulati S (corresponding author), Kabra M, Sahu JK, Kalra V .Folic acid supplementation prevents phenytoin-induced gingival overgrowth in childrenNeurology. 2011 Apr 12;76(15):1338-43.	2011	8.485	54
8	Raju KNV, Gulati S, Kabra M, Agarwala A, Sharma S, Pandey RMEfficacy of 4:1 (classic) versus 2.5:1 ketogenic ratio diet in refractory epilepsy in young children: a randomized open labeled study Epilepsy Res. 2011 Sep;96(1-2):96-100.	2011	2.208	61
9	Choudhary, Anita; Gulati, Sheffali (Corresponding); Kabra, Madhulika; Singh, Upinder Pal; Sankhyan, Naveen; Pandey, Ravindra Mohan; Kalra, Veena. Efficacy of modified constraint induced movement therapy in improving upper limb function in children with hemiplegic cerebral palsy: a randomized controlled trial.Brain Development. 2013; 35(9): 870-876	2013	1.504	75
10	Choudhary A, Gulati S, Sagar R, Sankhyan N, SripadaK.Childhood epilepsy and ADHD comorbidity in an Indian tertiary medical center outpatient population. Sci Rep. 2018 08;8(1):2670.	2018	4.379	14

**Has many Research Projects** (NIH, Autism speaks, MRC, UK, DBT, ICMR, DST, UNICEF, WHO, National trust, USAID, MOHFW; AIIMS-UCL) leading to innovations/advocacy.

Developed/Validated culture sensitive Screening /Diagnostic Instruments: Autism, ADHD, Epilepsy, Neuromotor impairment ("Rashtriya Bal Swasthya Karyakram" (MOHFW)/ autism certification/training of master trainers by MOSJE. (Mobile app Pedneuroaiims Diagnostics (google/ios); studied prevalence of Neurodevelopmental disorders

- 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 4<sup>th</sup> National workshops for the same now starting a 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 march hunt (with National trust on 3<sup>rd</sup> April 2017)
  - Chairperson of subcommittee on Developmental Disorders Certification as a Disability
  - Expert in International group for launching of a Global Action for Autism, Dhaka
  - 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)
- Assigned responsibility to train master trainers in diagnosing and certifying Autism, Have developed resource material/website [www.pedneuroaiims.org](http://www.pedneuroaiims.org), organized 4 national workshops and developing e-courses.
- **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
  - Mobile app for diagnosis (Pedneuroaiims Diagnostics)
  - 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 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 (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, Robotics
- **Neuromuscular Disorders**
  - ✓ **PI 3 RCTs** Gabapentin, Valproate & Valproate with levocarnitine in **Spinal Muscular atrophy**; RCT on Corticosteroid therapy; Meta analysis on Inspiratory muscle training; pulmonary functions in DMD, telephone follow up in DMD; Induced pluripotent stem cells in DMD, various myopathies; Various studies on muscle biopsy and skin biopsy in various muscle dystrophies besides diagnostic tool; evaluation of various neuropathies associated with systemic diseases; Telephone follow up in DMD, Smooth muscle function in DMD; Genotype-phenotype correlation in LGMD type 2A/R1; RCT of Ataluren in DMD, RCT of Vitrolarsen, Exon skipping, Zolgensma
  - ✓ **SMA:** Coordinating Spinraza Humanitarian Access program 12 on follow up since December 2019 and 38 more selected now, 1st Genetherapy (Zolgensma) for SMA administered in May 2020 and total 4 given thus far as a part of Global access Program, Risdiplam 6 patients have been selected for humanitarian access program
- **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, rTMS 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

- **Academic Recognition for Research**

- Folic acid supplementation prevents phenytoin-induced gingival overgrowth in children (Neurology 2011);Podcast interview; Faculty 1000 -n top 2% of articles in biology/ medicine; Evaluated as Exceptional
- Surgery for Drug-Resistant Epilepsy in Children (NEJM 2017) cited in many articles like Reuters Online, Medical Dialogues, Journal Watch, Physicians Briefing, Aletheia, tips, Heilpraxisnet, Medical online, Sachsische Zeitung, British Journal of Sports Medicine, Medical dialogues, Gesundheitsstadt Berlin
- Reuters health Article:Modified Atkins diet reduces seizures in pediatric epilepsy- (*Reuters Health*)
- Neurology practice update commentary: Gulati S. Skin Biopsy to Diagnose Sarcoglycanopathies. PracticeUpdate
- Cystic Fibrosis Unite' is a Wellcome Trust-funded public engagement in science
- "Vitamin E Administration and Reversal of Neurological Deficits in Protein – Energy Malnutrition;paper of the month;indexed in Current Awareness in Biomedicine: Oxygen Radicals; cited in the latest recommendations for Vitamin
- JAMA Pediatrics Aug 2020 article on dietary therapies in intractable epilepsy quoted in medpage today, neurology live and many other citations in social media and print media and Journal club/podcast in ICNAPEDIA March 2021
- Paper on psychological issues in children, October 2020, has been featured in Neurology today
- Commentator for Evidence- Based Mental Health, an International digest ( BMJ publishing group)

**Awards to Co-Authors/ Students for Collective Research Work Done 37:**

- Study of the Spectrum of Childhood Leukodystrophies, Correlation with Imaging, Spectroscopic and Biochemical Features at the 58th Annual Congress of Indian Radiological And Imaging Association, January,2005.
- Tuberous sclerosis spectrum and magnetic resonance spectroscopy (accepted for presentation at the 7<sup>th</sup> Annual Meeting of the Infantile Seizure Society” International Symposium on Neuronal Migration disorders and childhood epilepsies-clinical manifestations, pathomechanisms and epileptogenesis”, Tokyo, Japan April 16<sup>th</sup> –April 17<sup>th</sup>, 2004.
- **Second best original research award/ Thesis for the year 2003 by Indian Journal of Pediatrics** Intranasal midazolam versus per rectal diazepam in the treatment of acute childhood seizure.
- “Mutation analysis and Prenatal Diagnosis of Megalencephalic leukodystrophy” in International conference on Medical & community Genetics 15-17 February 2008, Chandigarh, India.
- Efficacy of modified constraint induced movement therapy for cerebral palsy children with asymmetric motor impairment. National Childhood Disability Conference 2010 (13-14 November)
- Menke's disease: An important cause of early onset refractory seizures.t International Conference on Inborn errors of Metabolism and 2<sup>nd</sup> National conference of ISIEM April 5<sup>th</sup> to April 7<sup>th</sup> 2013
- Finger drop sign as isolated presenting feature of Acute Motor Axonal Neuropathy variant of Guillian Barre Syndrome. **(5th National Conference of Association of Child Neurology (AOCN) 5th Child Neurocon on 7th, 8th & 9th February 2014**

- Clinical spectrum of psychogenic non - epileptic events in children (6-16 years)(Platform Award presentation)) DelhiCON 2014 7<sup>th</sup> December **Dr P N Taneja Award**
- Use of the Modified Atkins Diet for Treatment of Refractory Childhood Epilepsy: A Randomized Controlled Trial PEDICON22-25<sup>th</sup> January 2015 Hotel Ashok Samrat New Delhi
- Cognitive- behavioural and symptom profile of children with Autism spectrum Disorder: A study from tertiary care hospital NACIACP 6-8<sup>th</sup> February 2015 .
- MoyaMoya Pattern and cerebral venous sinus thrombosis: a rare combination in tuberculous meningitis (Poster) 6<sup>th</sup> Child Neurocon AOCN21-23 Feb 2015
- Telephone based follow up of children with West syndrome (after 12 weeks of ACTH/Steroid/Vigabatrin therapy) and Lennox-Gastaut syndrome aged 4 months to 7 yrs: How accurate is it to identify critical clinical events requiring face to face: P1001(**Recognised as of the best poster category**) **31<sup>st</sup> International Epilepsy Congress**, Istanbul, Turkey 5<sup>th</sup> to 9<sup>th</sup> September, 2015
- .Nuclear- Mitochondrial cross-talk: Implications in mitochondrial function and disease pathophysiology 7<sup>th</sup> to 10<sup>th</sup> December 2016; Third National Conference of the Society for Indian Academy of Medical Genetics (SIAMG)
- Chronic Meningitis with persistent hypoglycorrachia: An unusual presentation of Lyme's disease 03-05 Feb, 2017; VIIIth National Child Neurology Coneference- Child Neurology Conference 2017
- Cerebral venous sinus thrombosis in a child with Lesch-Nyhan Syndrome 03-05 Feb, 2017; VIIIth National Child Neurology Coneference- Child Neurology Conference
- Nuclear – Mitochondrial cross-talk: Implications in mitochondrial function and disease pathophysiology 10-11 Feb, 2017; 6<sup>th</sup> International Conference on “Mitochondria in Health and Disease” of Society for Mitochondrial Research and Medicine-India (SMRM)
- Assosication of sleep apnoea with development and behavior related abnormilities in Down Syndrome 8-10 Dec, 2017; 4<sup>th</sup> National Conference of Society of Indian Academy of Medical Genetics
- Effect of structured weight bearing exercises on Bone mineral density in children with cerebral palsy. Presented (oral presentation) at Paediatric conference of North India- 1<sup>st</sup> national conference on research in child health held from 22-24<sup>th</sup> December 2017
- .Dietary Therapy In Epilepsy Treatment (DIET-Trial): A Randomised Non-Inferiority Trial Comparing KD, MAD & LGIT for Drug Resistant Epilepsy. Presented (oral presentation) at Paediatric conference of North India- 1<sup>st</sup> National Conference on Research in Child Health held from 22-24<sup>th</sup> December 2017
- Profile of Neurologic syndromes, cognition, behavior and sleep related problems in HIV infected children. presented (oral presentation) at Pediatric Conference of North India-1<sup>st</sup> National conference on research in child health held from 22-24<sup>th</sup> December 2017
- Comparative analysis of predominant gut micro flora and their metabolites in autistic versus normal children for probiotic interventions.presented .... at 4<sup>th</sup> Biennial Conference of PAi and International Symposium on Probiotic Therapy: Translating to Health and Clinical Practice held from 16-17<sup>th</sup> February
- Re-evaluating the reduced social motivation theory of autism in International Society for Autism Research Annual Meeting from 2018 May 9-12 at Rotterdam, Netherlands (**received the Best Technical Demonstration award at the Measuring Behaviour Conference 2018**)
- Screening Tools for autism risk using technology in International Society for Autism Research Annual Meeting from 2018May 9-12 at Rotterdam, Netherlands (**won the overall jury prize for the START app at the ehealth summer university conference** )
- . Effect of structured weight bearing exercise on bone mineral density in children with Cerebral Palsy- an observational cohort.(**Best Poster**) **at in 15<sup>th</sup> International Child Neurology Congress (ICNC)**
- Pulmonary functions in children with dystrophinopathy aged 5-18 years on oral steroid therapy for at least six months. Award received in 15<sup>th</sup> International Child Neurology Congress (ICNC)

- Clinical profile and outcome of Acute Necrotizing Encephalopathy of Childhood (ANEC): a retrospective case series with review of literature award received in 15<sup>th</sup> International Child Neurology Congress (ICNC)
- Disorders of Neuromuscular transmission in children: experience of a tertiary centre from North India award received in 15<sup>th</sup> International Child Neurology Congress (ICNC)
- Prevalence of smooth muscle dysfunction among children with Duchenne muscular dystrophy. Award received in 15<sup>th</sup> International Child Neurology Congress (ICNC)
- **Best technical demonstration at 11th International Conference on Measuring Behaviour 2018, Manchester, UK, Title: START: a Tablet-Based Platform to Detect Autism Risk Jury prize across all categories at the international eHealth awards competition (from over 800 entries from 23 countries)**
- .Neurocognitive outcome and their diffusion tensor imaging (DTI) correlates in children with Mild Traumatic Brain Injury (mTBI) **2019 International Scholarship Award by the American Academy of Neurology**
- 'Evaluation of impact of timely institution of applied behavior analysis on the clinical course of young children at risk for developing autism spectrum disorder aged 18 to 36 months: a single centre observational study' Neuropedicon 2019
- "Structured remedial intervention for Indian school going children up to Class VI having Specific Learning Disorder (SLD) with Dyslexia: A longitudinal study assessing change of brain activation profile using Functional MRI and Resting state MRI and clinical severity scores using standard tools post intervention of 12 weeks" has been selected for the **ICNA Junior Investigator Award**
- **Dr. P.N.Taneja. Award** for-'Evaluation of repetitive Transcranial Magnetic Stimulation as an adjunct to modified Constraint Induced Movement Therapy in improving Upper Limb Function in Children with Hemiparetic Cerebral Palsy aged 5 – 18 years - A Randomized Controlled Trial'
- \*Best Award Paper Presentation\* - "Electroclinical response to steroids in children with electrical status epilepticus in sleep (ESES): A longitudinal cohort study" Neuropedicon 2021
- \*Best Free Paper Presentation\* - "Effect of low frequency rTMS therapy on cognition and behaviour in childhood drug refractory focal epilepsy - A randomised double blinded sham controlled study" Neuropedicon 2021

#### **Expert for various committees/ other recognition**

- **Ministry of Health and Family Welfare:** Covid 19, Core member, Independent Expert of Technical Resource Group(TRG), Developmental delays including Disabilities of the Rashtriya Bal Swasthya Karyakram., Expert for developing Framework for Convergent action towards comprehensive care of children with difficulties Expert for developing guidelines for certification in Autism , formulating guidelines for treatment of rare diseases:Member of committee and Coordinator of DMD/SMA subgroup; Consultation on Early Childhood Development: Journey of the First 1000 days
- **Lancet commission expert for covid 19**
- **Representative of Ministry of Health and Family Welfare for reviewing National Trust Act Amendment**
- **Ministry of Social Justice and empowerment:** Chairperson of subcommittee on Certification of Developmental Disorders including Autism; Member of National Expert Committees: for developing guidelines for assessment and certification of specified disabilities; Disabilities requiring high support; Identification of posts in government jobs for persons with disabilities, PH reservation in MCI and Combined Medical Services; sub committee on multiple disabilities; Expert group for finalizing training module for In-Service Training & Sensitization Programme, Rehabilitation Council of India.; Member of Expert Committee for starting of pre-school intervention centre for children with disabilities in Composite Regional Centres (CRCs) and National Institutes (NIs)



- **National trust:** Autism; National Coordinator for training master trainers in Autism tools; early intervention
- **Ministry of Women and Child Development:** Expert for Sensitizing the communities to the needs of persons with disabilities in Promoting Promising Dietary Practices: Social & Behavioral Change Communications (SBCC) strategies to advance “Jan Andolan” in Poshan Aabhiyaan.
- **Chairperson, Expert Committee meeting on Categorization of Special Needs Children;** Chairperson of the NOC Expert Committee of CARA ( Central Adoption Resource Authority);Expert to renew Medical Examination Report of Children to be adopted by CARA, Protocol for seamless functioning of the NOC Committee
- **Expert of the IAP, WHO, UNICEF Early childhood development program**
- **Expert of Academic committee of Fellowship program and Journal committee of Neurodevelopmental Chapter of IAP**
- **Expert for initiating the development of Doctrate of National board in Pediatric Neurology**
- **Member of ICMR PRG-** Reproductive Biology, Maternal & Child Health
- **Member ICMR Task Force:** IEM, AFP, children in difficult circumstances, Standard Treatment Workflow-Neurology Group, Stem Cell Research and Therapy, Rare disease Registry ( Neuromuscular disorders)
- **Neurology Expert Group** to discuss the advisory and editorial board recommendations for STWs, and the Health Benefit Packages under the AB-PMJAY scheme in collaboration with the NHA.
- **Member of DBT Technical Expert Committee (TEC)** of Maternal and Child Health- Developmental and Disease Biology
- **Biotechnology Industry Research Assistance Council (BIRAC):** Expert for evaluation of projects
- **National List of Essential Medicines (NLEM):** member of the "Neurology/ Psychiatry Expert Group"
- **Indian pharmacopeia mission:** Expert of Subject review committee for 6<sup>th</sup> edition of National Formulary of India (NFI) 2019-2020
- **Expert to examine reports of Serious Adverse Events of death that have occurred in clinical trials, (DCGI), Signal review panel**
- **Member of MCI expert group** for development of DM (Pediatric Neurology ) curriculum, ,competency based guidelines, MSR and teacher eligibility qualifications and Expert for , Member of UGC Expert Committee (Santosh University, Ghaziabad, Uttar Pradesh)
- **Inspections of Medical colleges ,including for MD Pediatrics and DM pediatric Neurology ( CMC Vellore, Medical college, Thiruvanthapuram)**
- **UGC expert** for evaluating medical universities ( Santosh university), selection for fellowships, travel grants
- **Member Neurology Expert Group** to discuss the advisory and editorial board recommendations for STWs, and the Health Benefit Packages under the AB-PMJAY scheme in collaboration with the NHA.
- **UNICEF:** Global partnership on children with disability- ECD task force
- **NCERT:** inclusion of children with special needs in mainstream schools, ECCE, Member of Expert committee on Education of children with special needs
- **CBSE:** Member of Expert committee on Education of children with special needs
- **WHO:** Expert for Rapid assessment of national preparedness for implementing Nurturing Care for Early Childhood Development and gave in depth interview for the same on 16<sup>th</sup> December 2019
- **Deliver lectures for Advanced Diploma in Child Guidance & Counseling Course, National Institute of Public Cooperation and Child Development**
- **Member of Association of Child Neurology -Indian Epilepsy Society expert groups on:** Social and legal aspects of childhood epilepsy ( SOLACE), West syndrome and Febrile seizures

- **Scientific Advisory Committee member** for Comprehensive Care Centre for various Neurodevelopmental Disorders of Sree Chitra Tirunal Institute of Medical Sciences and Technology, Trivandrum
- Scientific Advisory Committee member for Kerala University of Health Sciences, Thrissur
- Member of the Steering Cum Advisory Committee for Centre of Excellence on Early Childhood Development at Department of Psychology, Utkal University
- Member of National Level consultative Expert Group for multicentric research opportunities in ASD., National Institute of Physical Medicine and Rehabilitation, Thrissur
- Member of Steering cum Advisory Committee for Centre of Excellence on Early Childhood Development (COE ECD), at Department of Psychology, Utkal University
- Drug Controller General of Health Sciences (DGHS) expert for discussing regarding use of drugs
- Expert in Consortium of Academia and Industry for capacity building in clinical research
- Expert for faculty recruitment for various hospitals and universities. External Subject Expert in the panel of Standing Selection Committee constituted for recruitment of Faculty positions in the of All India Institute of Medical Sciences: Bhubaneswar, Bhopal, Patna
- National Advisory Board Member of Indian Rett Syndrome Foundation
- Patron The Blessed Heart Foundation
- Patron for the 3<sup>rd</sup> International BMI Autism conference, February 2020
- Nodal office for AFP surveillance since 2000; Empanelled for Brain death certification, Member Staff Council, AIIMS; Member of the AIIMS committees on Accessibility India campaign (Sugamya Bharat Abhiyan), committee on Polio virus containment, Strengthening of Emergency Services at AIIMS, hostel subcommittee on Food court, Member of Anti-Ragging Squad, Member, Scientific Advisory Committee Endowment fund, compassionate use of drugs; Member of Committee to Review proposal for Fellowship in Multiple Sclerosis and Immunology.
- Chairperson, Board for disability assessment and certification. Department of Pediatrics AIIMS and 89 Autism Spectrum Disorder and 214 other disabilities certificates issued in the current year
- **Expert for Developing and updating Guidelines for diagnosis and management of Childhood epilepsy (National Guidelines of IAP Oct 2014, 2017) ; National Advisory Board member of Indian Epilepsy Society** for developing Phenobarbitone - Drug status guidelines; Valproate - Drug status guidelines; Fosphenytoin guidelines **Abstract reviewer and poster faculty guide** in 31<sup>st</sup> IEC 2015 for **International League Against Epilepsy, AAN, Member of Child Neurology and Developmental Neurology work group 2019**
- **Organizing Secretary of Childhood neurodevelopmental disorders workshop 1-3 Dec 2014; launched a mobile based website:** microsite: m.nddworkshop2014.org for neurodevelopmental disorders by honorable Health Minister. **Had conceptualized and was a Expert for developing Framework for Convergent action towards comprehensive care of children with difficulties (MOHFW) December 2014** which was released by the honorable Health Minister at this event. This microsite has now been changed to m.pedneuroaiims.org on 2<sup>nd</sup> December 2015 and has educational material for physicians and parents on various neurodevelopmental disorders
- National Coordinator of 4 **National Workshops for Training Master Trainers in Autism Tools** along with National trust ( August-September 2016, February 2017, April 2017)
- **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 and Scientific Chairperson for Neuropedicon 2021 and its 5 pre conference workshops**
- **Member of PH reservation in light of “Rights to Disability Act by Ministry of Social Justice 2016”**

## 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** 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**

## Reviewer of articles for the following Journals:

- Acta Pediatrics
- Medical Science Monitor
- Pediatric Clinics of India
- 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
- Review editorial board member of 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**

University of South Campus, Delhi

- PGI Chandigarh
- B P Koirala Institute of Health Sciences, Dharan, Nepal
- SGPGI, Lucknow
- Gujarat University (MD and DCH Practical Examiner)
- PhD examiner for JNU
- Baba Faridkot University of Health Sciences (Punjab)
- University of Kerala, Thiruvanthapuram
- Dr MGR Medical University, Tamil Nadu
- Amrita Vishwa Vidyapeetham University, Kochi
- Thesis examiner of M.Tech. student, IIT, Delhi
- PhD examiner for University of Calcutta
- The West Bengal University of Health Sciences, Kolkata
- Pt BD Sharma PGIMS, Rohtak
- Vishwa Vidyapeetham University

### Membership of Professional Bodies:

- Founder member, Executive Board Member, Life member of Association of Child Neurology, 2004
- Elected as the Executive Board Member of Child Neurology Chapter of IAP 2017
- Advisory Board Member, Academy of Pediatric Neurology, IAP 2019 onwards
- Chairperson Elect, Academy of Pediatric Neurology, IAP, March 2020
- CO Convenor, Pediatric subsection, Indian Epilepsy Society, 2020
- Executive Board member, Indian Epilepsy Society 2021
- Fellow of Indian Academy of Pediatrics
- Fellow of International Medical Sciences Academy
- Member of National Academy of Medical Sciences
- Life member of Indian Academy of Pediatrics, Delhi branch.
- Life member of Indian Academy of Pediatrics.
- Life member of Neurological Society of India.
- Life member, Indian Epilepsy Society
- Life member, Indian Epilepsy Association
- Life member of International Child Neurology Association.
- Life member of Asian and Oceanian Child Neurology Association.
- Founder member, Life member of Association of Child Neurology
- Life Associate Member, of Indian Academy of Neurology.
- Life member, Genetics Chapter of Indian Academy of Pediatrics.
- Life member, Child Neurology Chapter of Indian Academy of Pediatrics.
- Member, Clinical epidemiological Unit, AIIMS.
- Member, India CLEN
- Member, Childhood Disability Group, Indian Academy of Pediatrics.
- Member, Infantile Seizure Society
- Member, Indian Society of inborn errors of metabolism
- National Advisory Board Member of Indian Rett Syndrome Foundation
- Patron, The Blessed Heart Foundation
- Life Member, Pediatric Research and Education Society of India (PRESiDE)
- Member, American Academy of Neurology 2019
- Member, International Society for Autism Research, 2019 onwards


### Other recognition

- Core member of **Indo-Canadian Autism Network** 2019 onwards
- Only Asian for Elicitation Procedure for Clinical significant CARS 2 scoring March 2020
- Member **ICMR Task Force:** IEM, AFP, children in difficult circumstances
- Member of **MClexpert** group for drafting DM (Pediatric Neurology curriculum), Teacher qualifications
- **UGC expert** for evaluating medical universities
- Expert for formulating Comprehensive services for individuals with Autism, **Thiruvanthapuram**
- Expert for module development for strengthening Early childhood intervention program, **Orissa**
- **National Advisory Board Member**, Indian Rett Syndrome Foundation; **Patron**, The Blessed Hearts foundation
- **Scientific Advisory Committee member for Comprehensive Care Centre for various Neurodevelopmental Disorders of Sree Chitra Tirunal Institute of Medical Sciences and Technology, Trivandrum**
- **Scientific Advisory Committee member for Kerala University of Health Sciences, Thrissur**
- **Expert to renew Medical Examination Report of Children to be adopted by CARA**

- Expert to examine reports of **Serious Adverse Events of death** that have occurred in clinical trials, (DCGI); Expert for the **Development of Indian Extrapulmonary TB guidelines**(MOHFW); Expert for 5<sup>th</sup>**National Formulary of India** of Indian Pharmacopoeia commission. MOHFW, **National list of essential medicines**
- **Expert for faculty recruitment** for various hospitals and universities
- **Expert for Neurology projects** for MRC, UK, Indian Council of Medical Research, DBT, DST, National Trust, Drug Controller General of Health Sciences (DGHS)
- Has served/serving as **Editorial Board Member** (6); **Reviewer for various International and National journals**52( including BMJ open, Journal of inherited metabolic disease, American Journal of Medical Genetics, Journal of child Neurology,
- Nodal office for AFP surveillance since 2000; Member of the AIIMS committees on Polio virus containment; Strengthening of emergency services; Staff council
- **Member of the NOC Expert Committee of CARA (Central Adoption Resource Authority)**

Professor Sheffali Gulati has been instrumental in transforming the care of children with neurodevelopmental disorders. She has pioneered DM Pediatric Neurology program in South Asia and is doing extensive research. Her contributions in the field of epilepsy, autism, and neuromotor impairments are unmatched and she has touched many a lives by her efforts. With the development of website and mobile apps, she continues to take these efforts to a new level where the parents and physicians in far flunked areas of the country can also have access to the best possible recommendation for care.

Center of Excellence and Advanced Research for Childhood Neurodevelopmental Disorders is a stepping stone to take Academics, Clinical Care and Research in Paediatric Neurology to greater heights both at National and International level. The translational research envisaged is unique and First of its kind in South Asia.

  
 डॉ. शैफाली गुलाटी / Dr. Sheffali Gulati  
 आचार्य / Professor  
 प्रभारी संकाय, बाल सन्निका प्रभाग  
 Chief, Child Neurology Division  
 बालरोग चिकित्सा विभाग / Department of Pediatrics  
 अ.भा.आ.सं., नई दिल्ली / A.I.I.M.S., New Delhi-110029

# Few prestigious awards received since 2015- till date

- **Elected as fellow of Royal college of Paediatrics and child health; UK from 1<sup>st</sup> November 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> Feb 2021**
- **President Elect, Association of Child Neurology, India 2023-2025**
- **Chairperson, Academy of Pediatric Neurology, IAP, 2021**
- **Executive Board Member, Indian Epilepsy Society 2021**
- **Only Asian Expert selected for Elicitation Board Expert Group for ASD, France, January 2020**
- **Co-Convenor, Pediatric Epilepsy Subsection, Indian Epilepsy Society 2020**
- **Awarded Atal Swasthya Bhushan Samman 2019**
- **Award by Pediatric Neurology Chapter of IAP, Neuropedicon 2019**
- **Advisory Board Member, Academy Of Pediatric Neurology, IAP 2019 onwards**
- **AIIMS Excellence Research Award 2018 by AIIMS, New Delhi for Clinical Research**
- **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**
- **AIIMS Excellence Research Award 2017 by AIIMS, New Delhi for Clinical Research**
- **Dr. S. Janaki Memorial Oration by National Academy of Medical Sciences October 2016**
- **Fellow, National Academy of Medical Sciences, October 2016**

# ELECTED AS FELLOW OF ROYAL COLLEGE OF PAEDIATRICS AND CHILD HEALTH; UK :1<sup>ST</sup> NOV. 2021.



19/10/2021

Dear Professor Gulati,

**RCPCH Number: 324206**

Congratulations on being elected to Fellowship as of **1st November 2021**. Fellowship is the highest honour our College can bestow upon members and the title is rightly reserved for those who are truly working as specialist paediatricians.

Now you have joined a network of specialist paediatricians working in the UK and right across the globe, please do think about what that means for you as a role model - you have a significant role to play in nurturing future generations of paediatricians, through your role as a trainer, supervisor, mentor and clinical leader. There are many and varied ways to give back to the specialty, both through College roles and in your local organisations. As a College we both rely on and hugely value the work our Fellows undertake for us and the wider paediatric community - so please consider joining us.

As a College, we are committed to supporting specialists to learn and develop new skills throughout their career. We have a careers service at the College where you can access free advice from trained peers and a wide range of opportunities to help with your professional development.

As a Fellow, you'll now be entitled to use the postnominals FRCPCH and will be invited to attend a membership admission ceremony to receive your FRCPCH certificate, along with friends and family members.

I would definitely encourage you to attend the ceremony - as President, I am fortunate, on occasion, to be able to present certificates to members at the admission ceremony. I can honestly say this is one of my favourite parts of my role and it is lovely to see the hard work of paediatricians from countries across the globe being recognised in front of colleagues, friends and family.

As a Fellow, your annual membership fee will change - please keep reading for a detailed summary of your fees and how these are derived.

Congratulations once again on your success in being elected to Fellowship and I hope to see you at a College meeting or event in the near future.

Best wishes

Dr Camilla Kingdon  
President  
Royal College of Paediatrics & Child Health



# INSAR GLOBAL SENIOR LEADER FOR INDIA



400 Admiral Blvd  
Kansas City, MO 64106 USA  
Telephone 816.595.4852  
Fax 816.472.7765  
Email [info@autism-insar.org](mailto:info@autism-insar.org)  
Website [www.autism-insar.org](http://www.autism-insar.org)

December 18, 2020

## BOARD OF DIRECTORS

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at Mount Sinai  
Seaver Autism Center

### HEADQUARTERS STAFF

Jennifer Gentry

Dear Prof. Sheffali Gulati ,

Congratulations!

On behalf of the INSAR Board of Directors and the Global Senior Leaders (GSL) Committee, I am pleased to inform you that you have been selected as an **INSAR Global Senior Leader for India!**

The committee felt your contribution to autism research as well as your national and international leadership recommended you as a truly outstanding nominee for the inaugural group of INSAR Global Senior Leader Country Representatives.

Your role as an INSAR GSL representative has a term of 2 years, which is followed by a 2-year term of Past Global Senior Leader. The latter is to ensure continuity across transitions in GSL representatives and we would ask you to play an active role in recruiting nominees for the incoming GSL representative at the end of your initial two-year term. If you and the GSL Committee cannot identify nominees for the next representative you may be asked to stand for a second term as GSL representative from your country.

The role of GSL representative is to: a) serve as the point of contact for the INSAR Board of Directors about issues of national or international importance relating to autism research in your country, b) report to INSAR's Board in a one page Annual GSL Representative Report about the state of autism research in your country, c) be visible within the INSAR autism research community via your listing as the Representative for India on the INSAR Global Map on the INSAR website, d) serve as a role model for autism research excellence in your country, thus increasing INSAR membership recruitment in your country, e) foster a trans-national research culture that results in multi-center collaboration and team science approaches, and f) communicate and collaborate with any other INSAR committee members in your country, such as an INSAR Early Career Global Representatives, on the achievement of these goals.

You will be contacted shortly by the INSAR Staff with more administrative details about your role in the INSAR Global Senior Leaders program.

Once again, congratulations, and thank you very much for your service to the Society and the global autism community.

Peter Mundy  
INSAR President (2019- 2021)

# NATIONAL AWARD FOR OUTSTANDING EFFORTS IN SCIENCE AND TECHNOLOGY



**National Award for Outstanding Efforts in Science & Technology Communication through Innovative and Traditional Methods: (1) Dr Sheffali Gulati, Delhi (2) Shri Rakesh Khatri, Delhi**

**(1) Dr Sheffali Gulati**

Professor Sheffali Gulati has contributed to Science & Technology popularization and its communications by Public Health lectures and Print and Audiovisual media. She has developed various innovative tools for building child care and parents/professionals awareness. She has been instrumental in transforming the care of children with neurodevelopmental disorders. She has pioneered Academics/Patient Care/Research/Advocacy through Website- [www.pedneuroaiims.org](http://www.pedneuroaiims.org), mobile app Pedneuroaiims, E-learning modules (<https://pedneuroaiims.chalopadho.com>); Neuropharmacopeia, Parents Education material/videos, National Child Neurology Helpline/Tele-Consultations (24X7;toll free).



**Dr Sheffali Gulati**

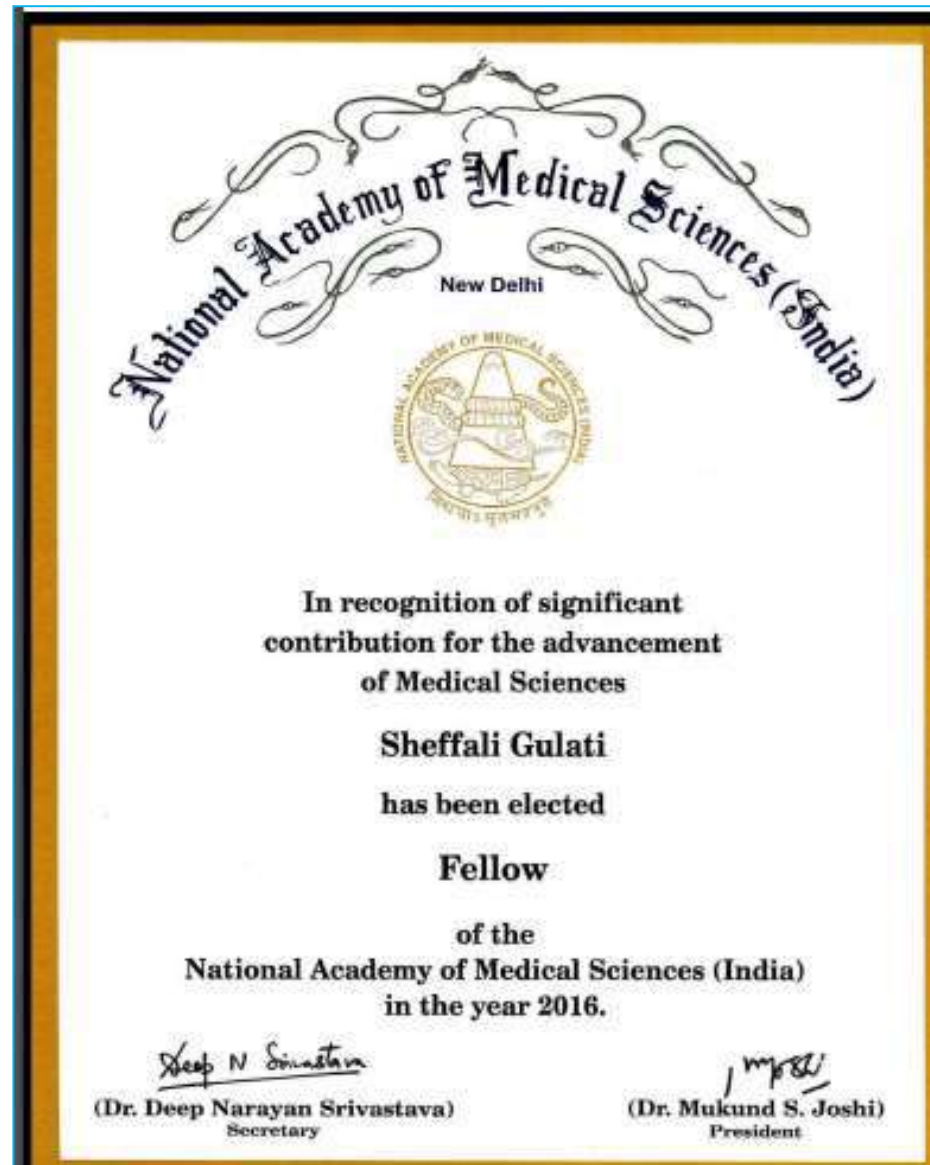
Department of Pediatrics, All India Institute of Medical Sciences,  
Ansari Nagar, New Delhi



राष्ट्रीय विज्ञान एवं प्रौद्योगिकी संचार परिषद्  
विज्ञान और प्रौद्योगिकी विभाग  
टेक्नोलॉजी भवन  
नई दिल्ली-110 016

**National Council for Science and Technology Communication**  
**Department of Science and Technology**  
**Technology Bhawan**  
**New Delhi - 110 016**

# FELLOW OF THE NATIONAL ACADEMY OF MEDICAL SCIENCES



# AIIMS EXCELLENCE RESEARCH AWARD



**All India Institute of Medical Sciences, New Delhi**  
**AIIMS Excellence Research Award 2017**  
**Certificate for Commendation**

**Awarded to**

**Dr. Sheffali Gulati**

in recognition of her outstanding publication under the category: *Clinical Research* titled  
*"Development of validation of AIIMSmodified INCLEN diagnostic instrument  
for epilepsy in children aged 1 month-18 years"*  
for the year 2016-2017

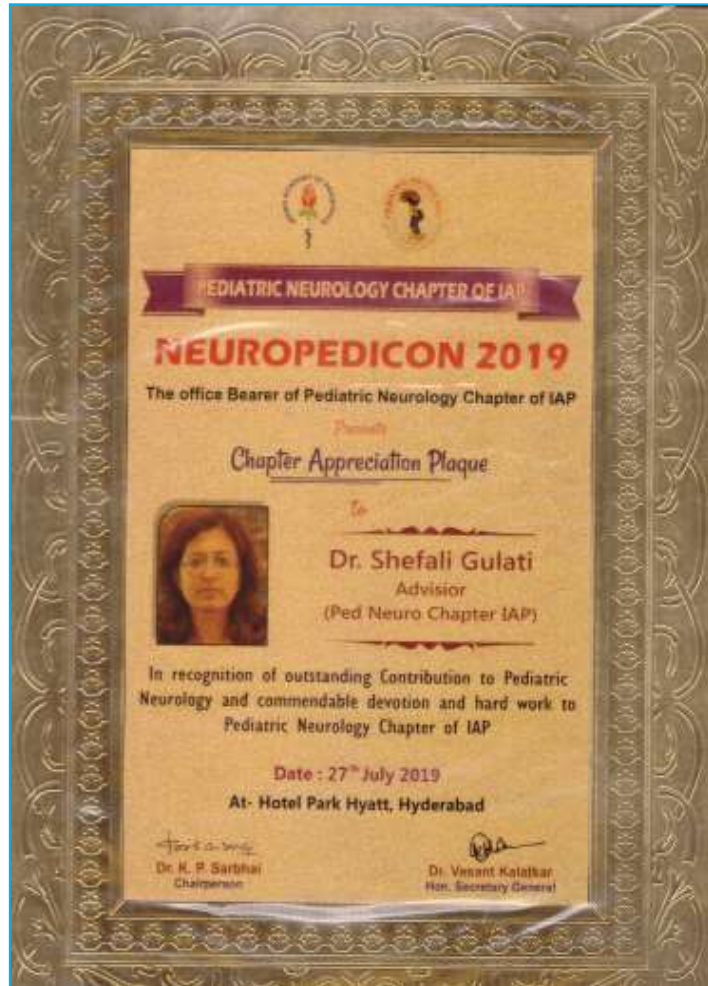
**Prof. A. K. Mahapatra**  
Dean (Research)

**Prof. Balram Airan**  
Dean (Academic)

**Prof. Randeep Guleria**  
Director





# OUTSTANDING CONTRIBUTION: NEUROPEDICON 2019,




# DR. S. JANAKI MEMORIAL ORATION BY NATIONAL ACADEMY OF MEDICAL SCIENCES OCTOBER 2016





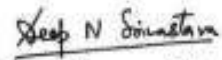
**National Academy of Medical Sciences (India)**  
New Delhi

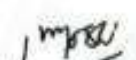


**DR. S. JANAKI MEMORIAL ORATION 2015-16**  
has been awarded to  
**Dr. Sheffali Gulati, MAMS**  
Professor  
Chief, Child Neurology Division,  
Department of Pediatrics,  
All India Institute of Medical Sciences,  
New Delhi

and was delivered at All India Institute of Medical Sciences, Raipur (Chhattisgarh).

**Subject of her Oration was**  
**"Neurodevelopmental Disorders : The Journey, the Dreams and their Realization"**

  
(Dr. Deep Narayan Srivastava)  
Secretary

  
(Dr. Mukund S. Joshi)  
President

Dr. S. Janaki Memorial Oration was instituted by National Academy of Medical Sciences (India) during the year 2013 in recognition of the significant contribution of Dr. S. Janaki, a distinguished Fellow of the National Academy of Medical Sciences and Foundation Professor of Neurology at the GB Pant Hospital and Maulana Azad Medical College, New Delhi. The Orator must have original contributions to the practice of Neurology especially pediatric & adolescent, including amongst others, basic research towards understanding Mechanism(s) of neurological disorders in children and adolescents, their pathophysiology, clinical or laboratory diagnosis, medical or surgical management, and recognition of such neurological disorders at the Indian Institute of Medical Sciences.



# AMRUT MODI UNICHEM PRIZE-2015 BY INDIAN COUNCIL OF MEDICAL RESEARCH (ICMR), NEW DELHI



## AMRUT MODI UNICHEM PRIZE

2015

CITATION

DR. SHEFFALI GULATI



The Amrut Mody Unichem Prize was instituted by Unichem Laboratories in 1985. This prize is awarded to a scientist for the research work carried out in the field of Gastroenterology/Cardiology/Neurology/Maternal & Child Health/ Chest Diseases. The award for the year 2015 is being presented to Dr. Sheffali Gulati, Department of Paediatrics, All India Institute of Medical Sciences, New Delhi for the research work on "Epilepsy and other neuro-developmental disorders".

Professor Sheffali Gulati is well-known for her work related to epilepsy. This spans from use of midazolam and lorazepam in acute seizures, folic acid supplementation for children on phenytoin therapy and dietary therapy for refractory epilepsy. Her landmark trials encompass various dietary modalities for refractory epilepsy, cerebral palsy and other neurodevelopmental disorders.

# ATAL SWASTHYA BHUSHAN SAMMAN 2019



**DR. SHEFFALI GULATI**

Professor & Chief Child  
Neurology Division, Dept. of  
Paediatrics  
AIIMS, New Delhi

## QUALIFICATIONS

- MBBS (AIIMS), MD(AIIMS), FAMS, FIAP, FIMSA

## BRIEF PROFILE

Professor Sheffali Gulati has been instrumental in transforming the care of children with neurodevelopmental disorders. She has pioneered DM Pediatric Neurology program in South Asia and is doing extensive research. Her contributions in the field of epilepsy, autism, and neuromotor impairments are unmatched and she has touched many a lives by her efforts. With the development of website and mobile apps, she continues to take these efforts to a new level where the parents and physicians in far flung areas of the country can also have access to the best possible recommendation for care.

- DM Pediatric Neurology Program which started in South Asia in 2004 she was part of the team the first and is heading DM Pediatric Neurology program since April 2008, 34 students have completed the DM Pediatric Neurology program so far.
  - She has over 23 years post MD teaching/work experience and has developed Pediatric Neurology in India as a specialty.
  - She was part of team led by Dr Deepak Gupta and Dr Ashok Kumar Mahapatra, from the Department of Neurosurgery at AIIMS, New Delhi, which successfully separated 28 month old twins featured in the 2020 edition of Limca Book of Records. She has 320 publications in International and National journal.
- Received AIIMS Excellence Research Award 2014, 2017 & 2018.,  
Lifetime Achievement Award by Child Neurology Chapter of Indian Academy of Pediatrics, Oct 2014.
- Dr. Sheffali Gulati is an experienced skilled & awarded doctor in her field of specialization.





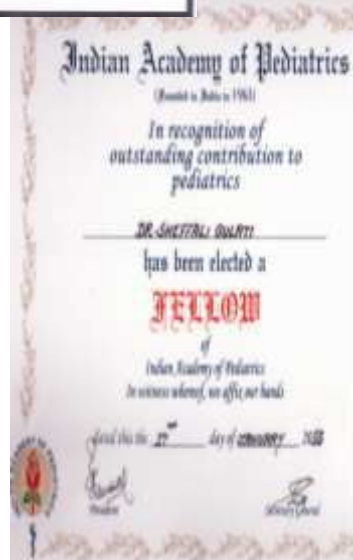
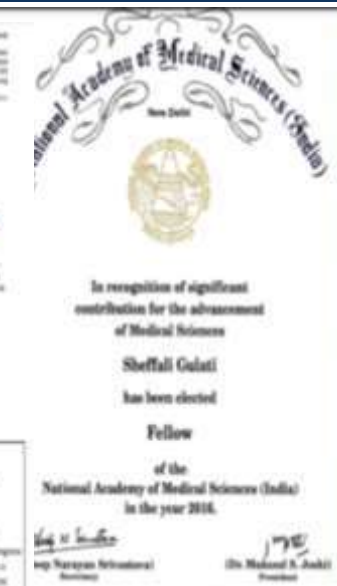
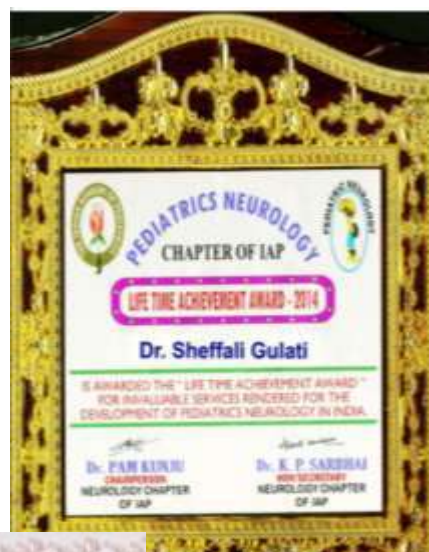
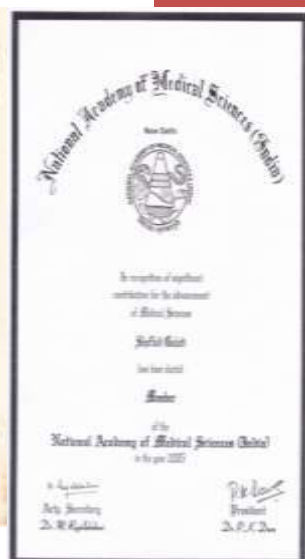
# OTHER AWARDS AND HONORS

MD Thesis

To determine the profile of blood lactate and patients with suspected neurometabolic

Awarded

Dr Sarla Vaishnav Award, 1995



# BEST PAPERS

S.No	Journal Details	Year	Impact Factor	citations
1	Sondhi, Vishal; Agarwala, Anuja; Pandey, Ravindra M; Chakrabarty, Biswaroop; Jauhari, Prashant; Lodha, Rakesh; Toteja, Gurudyal S; Sharma, Shobha; Paul, Vinod K; Kossoff, Eric; Gulati Sheffali (corresponding) Efficacy of Ketogenic Diet, Modified Atkins Diet, and Low Glycemic Index Therapy Diet Among Children With Drug-Resistant Epilepsy: A Randomized Clinical Trial. JAMA Pediatrics 2020; 174(10): 944-951	2020	13.946	14
2	Gulati, Sheffali (corresponding); Kaushik, Jaya Shankar; Saini, Lokesh; Sondhi, Vishal; Madaan, Priyanka; Arora, NK; Pandey, RM. Jauhari, Prashant; Manokaran, Ranjith K; Sapra, Savita. Development and validation of DSM-5 based diagnostic tool for children with Autism Spectrum Disorder. Plos one 2019;14(3); e0213242	2019	2.740	10
3	Arora NK, Nair MKC, Gulati S, Deshmukh V, Mohapatra A, Mishra D, Patel V, Pandey RM, et al. Neurodevelopmental disorders in children aged 2-9 years: Population-based burden estimates across five regions in India. PLoS Med. 2018 Jul 24;15(7):e1002615. doi: 10.1371/journal.pmed.1002615. PMID: 30040859; PMCID: PMC6057634.	2018	10.500	84
4	Dwivedi R, Ramanujam B, Chandra PS, Sapra S, Gulati S, Kalaivani M, Garg A, Bal CS, Tripathi M, Dwivedi SN, Sagar R, Sarkar C, Tripathi M. Surgery for Drug-Resistant Epilepsy in Children. N Engl J Med. 2017 Oct 26;377(17):1639-1647.	2017	91.245	277
5	Sharma S, Sankhyan N, Gulati S (corresponding author), Agarwala A Use of the modified Atkins diet for treatment of refractory childhood epilepsy: a randomized controlled trial. Epilepsia. 2013 Mar;54(3):481-6.	2013	6.040	139
6	Arya R, Gulati S (corresponding author), Kabra M, Sahu JK, Kalra V. Intranasal versus intravenous lorazepam for control of acute seizures in children: a randomized open-label study. Epilepsia. 2011 Apr;52(4):788-93	2011	6.040	79
7	Arya R, Gulati S (corresponding author), Kabra M, Sahu JK, Kalra V. Folic acid supplementation prevents phenytoin-induced gingival overgrowth in children. Neurology. 2011 Apr 12;76(15):1338-43.	2011	8.485	54
8	Raju KNV, Gulati S, Kabra M, Agarwala A, Sharma S, Pandey R Efficacy of 4:1 (classic) versus 2.5:1 ketogenic ratio diet in refractory epilepsy in young children: a randomized open labeled study Epilepsy Res. 2011 Sep;96(1-2):96-100.	2011	2.208	61
9	Choudhary, Anita; Gulati, Sheffali (Corresponding); Kabra, Madhulika; Singh, Upinder Pal; Sankhyan, Naveen; Pandey, Ravindra Mohan; Kalra, Veena. Efficacy of modified constraint induced movement therapy in improving upper limb function in children with hemiplegic cerebral palsy: a randomized controlled trial. Brain Development. 2013; 35(9): 870-876	2013	1.504	75
10	Choudhary A, Gulati S, Sagar R, Sankhyan N, Sripathi K. Childhood epilepsy and ADHD comorbidity in an Indian tertiary medical center outpatient population. Sci Rep. 2018 08;8(1):2670.	2018	4.379	14

# BEST PAPERS

Research

JAMA Pediatrics | Original Investigation

## Efficacy of Ketogenic Diet, Modified Atkins Diet, and Low Glycemic Index Therapy Diet Among Children With Drug-Resistant Epilepsy: A Randomized Clinical Trial

Vishal Sondhi, DM; Anuja Agarwala, MSc; Ravindra M. Pandey, PhD; Biswaroop Chakrabarty, DM; Prashant Jauhari, DM; Rakesh Lodha, MD; Gurudyal S. Toteja, PhD; Shobha Sharma, PhD; Vinod K. Paul, MD; Eric Kossoff, MD; Sheffali Gulati, MD

 Supplemental content

**IMPORTANCE** The ketogenic diet (KD) has been used successfully to treat children with drug-resistant epilepsy. Data assessing the efficacy of the modified Atkins diet (MAD) and low glycemic index therapy (LGIT) diet compared with the KD are scarce.

**OBJECTIVE** To determine whether the MAD and LGIT diet are noninferior to the KD among children with drug-resistant epilepsy.

**DESIGN, SETTING, AND PARTICIPANTS** One hundred seventy children aged between 1 and 15 years who had 4 or more seizures per month, had not responded to 2 or more antiseizure drugs, and had not been treated previously with the KD, MAD, or LGIT diet were enrolled between April 1, 2016, and August 20, 2017, at a tertiary care referral center.



RESEARCH ARTICLE

## Development and validation of DSM-5 based diagnostic tool for children with Autism Spectrum Disorder

Sheffali Gulati<sup>1\*</sup>, Jaya Shankar Kaushik<sup>2</sup>, Lokesh Saini<sup>3</sup>, Vishal Sondhi<sup>4</sup>, Priyanka Madan<sup>5</sup>, N. K. Arora<sup>6</sup>, R. M. Pandey<sup>7</sup>, Prashant Jauhari<sup>8</sup>, Ranjith K. Manokaran<sup>9</sup>, Savita Sapra<sup>10</sup>, Shobha Sharma<sup>11</sup>, Vinod K. Paul<sup>12</sup>, Rajesh Sagar<sup>13</sup>

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### Abstract

Diagnostic and Statistical Manual of mental disorder-IV (DSM-IV) TR based INCLEN Diagnostic Tool for Autism Spectrum Disorder (INDT-ASD) is an established instrument for the diagnosis of ASD in Indian subcontinent and low-middle income countries (LMIC). The introduction of DSM-5 necessitated the need to incorporate the DSM-5



 OPEN ACCESS



RESEARCH ARTICLE

## Neurodevelopmental disorders in children aged 2–9 years: Population-based burden estimates across five regions in India

Narendra K. Arora<sup>1\*</sup>, M. K. C. Nair<sup>2</sup>, Sheffali Gulati<sup>3</sup>, Vaishali Deshmukh<sup>1</sup>, Archisman Mohapatra<sup>1</sup>, Devendra Mishra<sup>4</sup>, Vikram Patel<sup>5,6</sup>, Ravindra M. Pandey<sup>7</sup>, Bhagabati C. Das<sup>8</sup>, Gauri Divan<sup>9</sup>, G. V. S. Murthy<sup>9</sup>, Thakur D. Sharma<sup>10</sup>, Savita Sapra<sup>3</sup>, Satinder Aneja<sup>11</sup>, Monica Juneja<sup>12</sup>, Sunanda K. Reddy<sup>12</sup>, Praveen Suman<sup>13</sup>, Sharmila B. Mukherjee<sup>11</sup>, Rajib Dasgupta<sup>14</sup>, Poma Tudul<sup>1</sup>, Manoj K. Das<sup>1</sup>, Vinod K. Bhutani<sup>15</sup>, Maureen S. Durkin<sup>16</sup>, Jennifer Pinto-Martin<sup>17</sup>, Donald H. Silbergberg<sup>18</sup>, Rajesh Sagar<sup>19</sup>, Faruqueuddin Ahmed<sup>20</sup>, Nandita Babu<sup>21</sup>, Sandeep Bavdekar<sup>22</sup>, Vijay Chandra<sup>23</sup>, Zia Chaudhuri<sup>24</sup>, Tanuj Dada<sup>25</sup>, Rashna Dass<sup>26</sup>, M. Gourie-Devi<sup>27</sup>, S. Remadevi<sup>28</sup>, Jagdish C. Gupta<sup>29</sup>, Kumud K. Handa<sup>30</sup>, Veena Kalra<sup>31</sup>, Sunil Karande<sup>32</sup>, Ramesh Konanki<sup>32</sup>, Madhuri Kulkarni<sup>33</sup>, Rashmi Kumar<sup>34</sup>, Arti Maria<sup>35</sup>, Muneer A. Masoodi<sup>36</sup>, Manju Mehta<sup>10</sup>, Santosh Kumar Mohanty<sup>37</sup>, Hari Kumar Nair<sup>2</sup>, Poonam Natarajan<sup>38</sup>, A. K. Niswade<sup>39</sup>, Atul Prasad<sup>40</sup>, Sanjay K. Rai<sup>41</sup>, Paul S. S. Russell<sup>42</sup>, Rohit Saxena<sup>25</sup>, Shobha Sharma<sup>3</sup>, Arun K. Singh<sup>43</sup>, Gautam B. Singh<sup>44</sup>, Leena Sumaraj<sup>45</sup>, Saradha Suresh<sup>46</sup>, Alok Thakur<sup>47</sup>, Sujatha Parthasarathy<sup>48</sup>, Bhadrash Vyas<sup>49</sup>, Ansuman Panigrahi<sup>8</sup>, Munish K. Saroch<sup>50</sup>, Rajan Shukla<sup>9</sup>, K. V. Raghava Rao<sup>51</sup>, Maria P. Silveira<sup>52</sup>, Samiksha Singh<sup>9</sup>, Vivek Vajaratkar<sup>5,53</sup>



 OPEN ACCESS

**Citation:** Arora NK, Nair MKC, Gulati S, Deshmukh V, Mohapatra A, Mishra D, et al. (2018)

**1** The INCLEN Trust International, New Delhi, India, **2** Kerala University of Health Sciences, Medical College, Thiruvananthapuram, India, **3** Department of Pediatrics, All India Institute of Medical Sciences, New Delhi, India



# EVOLUTION OF DIETARY SERVICES → LESS RESTRICTIVE DIETS

**Efficacy of 4:1 (classic) versus 2.5:1 ketogenic ratio diets in refractory epilepsy in young children: A randomized open labeled study**

K.N. Vykunta Raju<sup>a</sup>, Sheffali Gulati<sup>a,\*</sup>, Madhulika Kabra<sup>a</sup>, Anuja Agarwala<sup>a</sup>, Suvasini Sharma<sup>a</sup>, Ravindra Mohan Pandey<sup>b</sup>, Veena Kalra<sup>a</sup>

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**Teleconsultation for Dietary therapies 2018...**

**KD 2.5:1 (2008)**

**KD minimum ratio to achieve ketosis (2009)**

**KD Vs MAD RCT (2014)**

**Daily Vs Intermittent LGIT RCT (2017-18)**

**KD in status epilepticus (2019-22)**

**KD 4:1 (2006)**

**MAD (2010)**

**LGIT (2011)**

**KD Vs MAD Vs LGIT (2016-17)**

**MAD Vs LGIT RCT 2018-19**

**GFCF in ASD (RCT) (2018-2022)**



**Dietary Therapies: Emerging Paradigms in Therapy of Drug Resistant Epilepsy in Children**

Based on 6th Dr. I. C. Verma Excellence in Research Award Oration

*Neurology Apr 2019, 92 (15 Suppl)*

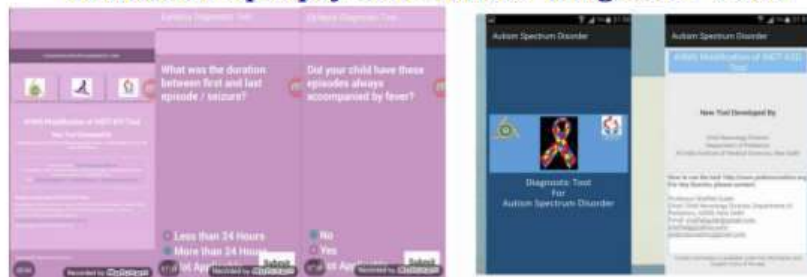
*P5.6-052.*

*Epilepsia Nov 2019, 60 (S2) P152*

# Mobile app: ASD & other NDD

## Mobile Applications

### Childhood Epilepsy and Autism Diagnostic Tools



Mobile applications available on Google Play store and iOS platform free of cost for diagnosis of Epilepsy and Autism

### ADHD and Neuromotor Impairment Diagnostic Tool



Mobile applications for ADHD, and NMI are currently available in Google Play and in iOS also

### New Mobile App



# TRAINING OF MASTER TRAINERS on ASD

## Thaawar Chand Gehlot at "National Workshop on Autism Tools"

Published on © Thu, Sep 1 2016 16:15 IST | 89 Views



Photo News

New Delhi: Union Minister for Social Justice and Empowerment Thaawar Chand Gehlot interacts with the master trainers, at the "National Workshop on Autism Tools" in New Delhi on Sept 1, 2016.

Photo Categories

Fashion

Sports Photos

Politics

Hollywood

International

Cinema South

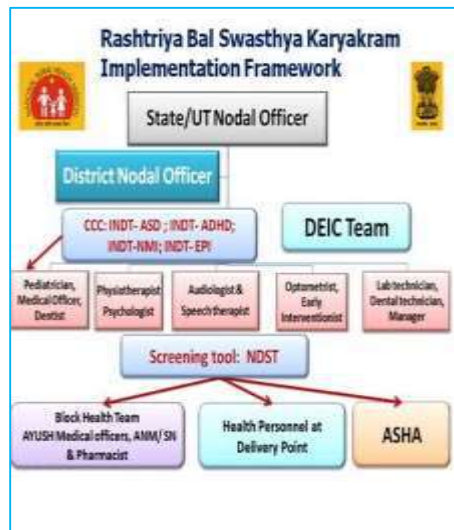
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SHARE



# ADVOCACY AND ASSISTING GOVERNMENT INITIATIVES

## Rashtriya Bal Swasthya Karyakram



### INVESTIGATORS of INCLIN NDD PROJECT

Dr. Narendra Arora (Project Leader)

Dr. MKC Nair (Principal Investigator)

Dr. Jennifer Pinto-Martin (Co-PI)

Dr. Donald Silberberg (Co-PI)

**Dr Sheffali Gulati (Network Coordinator)**

### INCLIN STUDY GROUP

Arun Singh	J.C Gupta	Poonam Natrajan	Sunil Karande
A.K Niswade	Archisman Mohapatra	Rajesh Sagar	Sanjay Rai
Alok Thakkar	K.K Handa	Rakesh Kumar	Satinder Aneja
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B.C Das	Madhuri Kulkarni	Ritu Juneja	Sunanda K
Bhadresh Vyas	Muneer Massodi	Rashmi Kumar	Tanuj Dada
Devender mishra	Manju Mehta	Rashna das	T.D Sharma
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GVS Murthy	Praveen Suman mehta	Saradha Suresh	Vinod Aggarwal
Harikumar Nair	Poma Tadu	Sujatha Thyagu	Zia Chaudhary
Abhishek Singh	Abhimanyu Singh Chauhan	Shobha Sharma	Vaishali Deshmukh



# BEST PAPERS

THE NEW ENGLAND JOURNAL OF MEDICINE

## ORIGINAL ARTICLE

### Surgery for Drug-Resistant Epilepsy in Children

Rekha Dwivedi, Ph.D., Bhargavi Ramanujam, M.D., D.M.,  
P. Sarat Chandra, M.Ch., Savita Sapra, Ph.D., Sheffali Gulati, M.D., D.M.,  
Mani Kalaivani, Ph.D., Ajay Garg, M.D., Chandra S. Bal, M.D.,  
Madhavi Tripathi, M.D., Sada N. Dwivedi, Ph.D., Rajesh Sagar, M.D.,  
Chitra Sarkar, M.D., and Manjari Tripathi, M.D., D.M.

#### ABSTRACT

##### BACKGROUND

Neurosurgical treatment may improve seizures in children and adolescents with drug-resistant epilepsy, but additional data are needed from randomized trials.

##### METHODS

In this single-center trial, we randomly assigned 116 children to

From the Departments of Neurology (R.D., B.R., Manjari Tripathi), Neurosurgery (P.S.C.), Pediatrics (S.S., S.G.), Biostatistics (M.K., S.N.D.), Neuro-Radiology (A.G.), Nuclear Medicine (C.S.B., Mad

*Epilepsia*, 54(3):481–486, 2013  
doi: 10.1111/epi.12069

## FULL-LENGTH ORIGINAL RESEARCH

### Use of the modified Atkins diet for treatment of refractory childhood epilepsy: A randomized controlled trial

\*<sup>1</sup>Suvasini Sharma, \*<sup>2</sup>Naveen Sankhyani, \*Sheffali Gulati, and †Anuja Agarwala

\*Division of Pediatric Neurology, Department of Pediatrics, All India Institute of Medical Sciences, New Delhi, India; and †Department of Pediatrics, All India Institute of Medical Sciences, New Delhi, India

#### SUMMARY

**Purpose:** The aim of this study was to evaluate the efficacy of the modified Atkins diet in a randomized controlled trial in children with refractory epilepsy.

**Methods:** Children aged 2–14 years who had daily seizures despite the appropriate use of at least three anticonvulsant drugs were enrolled. Children were randomized to receive either the modified Atkins diet or no dietary intervention

dren discontinued the diet before the study end point, and three children in the control group were lost to follow-up. The mean seizure frequency at 3 months, expressed as a percentage of the baseline, was significantly less in the diet group:  $59 \pm 54$  (95% confidence interval [CI] 44–74.5) versus  $95.5 \pm 48$  (95% CI 82–109),  $p = 0.003$ . The proportion of children with >90% seizure reduction (30% vs. 7.7%,  $p = 0.005$ ) and >50% seizure reduction was significantly higher in the diet group. Constipation was the most

*Epilepsia*, 52(4):788–793, 2011  
doi: 10.1111/j.1528-1167.2010.02949.x

## FULL-LENGTH ORIGINAL RESEARCH

### Intranasal versus intravenous lorazepam for control of acute seizures in children: A randomized open-label study

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\*Division of Pediatric Neurology, Department of Pediatrics, †Department of Pediatrics, All India Institute of Medical Sciences, New Delhi, India; and ‡Department of Neurology, Neurosciences Centre, All India Institute of Medical Sciences, New Delhi, India

#### SUMMARY

**Purpose:** Intravenous lorazepam is considered the drug of first choice for control of acute convulsive seizures. However, resource or personnel constraints necessitate the study of alternative routes and medications. This study compared the efficacy and adverse effects of intranasal versus intravenous lorazepam in children aged 6–14 years who presented with acute seizures.

**Methods:** This was a randomized open-label study con-

outcome measure was clinical seizure remission within 10 min of drug administration. The study was registered with clinicaltrials.gov (NCT00735527).

**Key Findings:** Seventy patients were randomized to receive intravenous and 71 to receive intranasal lorazepam. The patients in the two groups were comparable at baseline. Clinical seizure remission within 10 min of drug administration was found in 80% of the intravenous group as compared to 83.1% of intranasal group. The lower limit of 95% confidence interval for effect size was approxi-



# BEST PAPERS

## Folic acid supplementation prevents phenytoin-induced gingival overgrowth in children



R. Arya, MD, DM  
S. Gulati, MD  
M. Kabra, MD  
J.K. Sahu, MD, DM  
V. Kalra, MD

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sheffaligulati@gmail.com

### ABSTRACT

**Objective:** Gingival overgrowth is an important adverse effect of phenytoin (PHT) therapy, occurring in about half of the patients. This study aimed to evaluate the effect of oral folic acid supplementation (0.5 mg/day) for the prevention of PHT-induced gingival overgrowth (PIGO) in children with epilepsy aged 6–15 years on PHT monotherapy for 6 months.

**Methods:** This was a randomized, double-blind, placebo-controlled trial conducted at a tertiary level hospital from May 2008 to June 2009. Children aged 6–15 years started on PHT monotherapy within last 1 month were eligible for inclusion. Preexisting gingival overgrowth, use of other folic acid antagonists, and macrocytic anemia were exclusion criteria. Trial subjects were randomized to receive either folic acid or placebo. The primary outcome measure was incidence of any degree of gingival overgrowth after 6 months of PHT monotherapy. The trial was registered with clinicaltrials.gov (NCT00141444).

**Results:** A total of 120 children were enrolled in the study. The 2 arms were



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Brain & Development xxx (2012) xxx–xxx

### Original article

## Efficacy of modified constraint induced movement therapy in improving upper limb function in children with hemiplegic cerebral palsy: A randomized controlled trial

Anita Choudhary<sup>a,1</sup>, Sheffali Gulati<sup>a,\*</sup>, Madhulika Kabra<sup>a</sup>, Upinder Pal Singh<sup>b</sup>,  
Naveen Sankhyan<sup>a,1</sup>, Ravindra Mohan Pandey<sup>c</sup>, Veena Kalra<sup>a,2</sup>

<sup>a</sup> Department of Pediatrics, All India Institute of Medical Sciences, New Delhi 110029, India

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Received 27 July 2012; received in revised form 31 October 2012; accepted 1 November 2012

### Abstract

**Purpose:** The objective of this randomized single blind (outcome assessor) controlled trial was to evaluate the efficacy of 4 weeks

Epilepsy Research (2011) 96, 96–100



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journal homepage: [www.elsevier.com/locate/epilepsyres](http://www.elsevier.com/locate/epilepsyres)



## Efficacy of 4:1 (classic) versus 2.5:1 ketogenic ratio diets in refractory epilepsy in young children: A randomized open labeled study

K.N. Vykunta Raju<sup>a</sup>, Sheffali Gulati<sup>a,\*</sup>, Madhulika Kabra<sup>a</sup>, Anuja Agarwala<sup>a</sup>,  
Suvasini Sharma<sup>a</sup>, Ravindra Mohan Pandey<sup>b</sup>, Veena Kalra<sup>a</sup>

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Received 19 November 2010; received in revised form 1 May 2011; accepted 8 May 2011  
Available online 28 May 2011


### DEVELOPMENT

Official Journal of  
the Japanese Society  
of Child Neurology

[www.elsevier.com/locate/braindev](http://www.elsevier.com/locate/braindev)

...an important role in the efficacy

# SCIENTIFIC REPORTS



OPEN

## Childhood epilepsy and ADHD comorbidity in an Indian tertiary medical center outpatient population

Received: 19 July 2017

Accepted: 22 January 2018

Published online: 08 February 2018

Anita Choudhary<sup>1,2</sup>, Sheffali Gulati<sup>1</sup>, Rajesh Sagar<sup>3</sup>, Naveen Sankhyan<sup>1,4</sup> & Kam Sripada<sup>5</sup>

This study aimed to assess the prevalence of Attention Deficit Hyperactivity Disorder (ADHD) and its characteristics and risk factors in children with epilepsy at a tertiary medical center in New Delhi. Children with active epilepsy, aged 6 to 12 years, were assessed for ADHD using DSM-IV-TR criteria. Epilepsy and psychiatric characteristics, sociodemographic indicators, and use of antiepileptic drugs were analyzed for differences between the ADHD and non-ADHD groups. Among the 73 children with epilepsy, 23% (n = 17) had comorbid ADHD, of whom 59% (n = 10) had predominantly inattentive type, 35% (n = 6) combined type, and 6% (n = 1) predominantly hyperactive-impulsive type. Lower IQ scores, epileptiform EEG activity, not attending school, and male sex were significantly associated with comorbid ADHD in children with epilepsy. Groups were similar in terms of age, socioeconomic

# RESEARCH TO INNOVATIONS

- Mobile app
- 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
- Mobile app for diagnosis (Pedneuroaiims Diagnostics)
- 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



# LAUNCH OF CHILD NEUROLOGY HELPLINE AND TELE-CONSULTATION SERVICES



Child Neurology Division  
Center of Excellence & Advanced Research on  
Childhood Neurodevelopmental Disorders  
Department of Pediatrics  
All India Institute of Medical Sciences, New Delhi India  
[www.pedneuroaiims.org](http://www.pedneuroaiims.org)

An AIIMS-IIFCL Joint Initiative



Toll free  
Helpline :  
Phone  
Number  
1800117776

**National Child Neurology Tele-Helpline Service**  
for  
Childhood Neurodevelopmental Disorders  
An AIIMS-IIFCL Joint Initiative

**Our Toll Free Number**  
1800 11 7776

**Standard Operating Procedures**

**24/7**

**National Child Neurology Helpline and Tele-Consultation Services for Childhood Neurodevelopmental Disorders**  
Standard Operating Procedures

**24/7**

**Child Neurology Tele-Consultation Service**  
for  
Childhood Neurodevelopmental Disorders  
An AIIMS-IIFCL Joint Initiative

**24/7**



24/7

# CHILD NEUROLOGY DIVISION, DEPT. OF PEDIATRICS, AIIMS, DELHI



WEBSITE  
LAUNCHED



<http://pedneuroaiims.org/index.html>



# E-LEARNING MODULES

For undergraduate, postgraduate & DM

For healthcare professionals

Age	Language Milestones	Age	Red Flags for Gross Motor
4 Weeks	Gurgles when fed or lying	9 Months	No sitting without support
6 Weeks	Smiles and vocalizes when talked to	12 Months	No standing with Assistance
12 Weeks	Squints with pleasure, self-mouth	17 Months	Unable to stand alone
16 Weeks	Aah-goo	18 Months	Unable to walk alone
20 Weeks	Passing (blowing between partly closed lips)	2 Years	Unable to walk upstairs with help
24 Weeks	Monosyllabic babble (da-da, de-de)	4 Years	Unable to jump
32 Weeks	Disyllabic (da-da, de-de)		
1 Year	2-3 Words with meaning	Age	Red Flags for Fine Motor
15 Months	Jiggling	5 Months	Unable to hold rattle
18 Months	15 words with meaning	12 Months	No pincer grasp
2 Years	50 words vocabulary	20 Months	Unable to remove socker gloves
3 Years	200 words vocabulary, questioning, some prepositions, nursery rhymes	24 Months	Unable to scribble
4 Years	Speaks in sentences of 3-4 words; tells long stories	3 Years	Cannot work simple toys
5 Years	Speaks sentences of more than 5 words; Uses future tense, Days name and address	5 Years	Does not draw picture
Age	Reaching Milestones	Age	Red Flags for Hearing
26 Weeks-12	Starts reflex	12 Months	No Babbling/ Vocal Imitation
3 Months	Turns the head to the side from where sound is coming	18 Months	No use of single words
3-4 Months	Turns the head as well as eyes to the direction of sound	24 Months	Single word vocabulary <10 words
5-6 Months	Turns head sideways and below	30 Months	<100 words, No 2-word combination
6 Months	Turns head sideways and then upward; starts imitating sounds	36 Months	<200 words, No telegraphic sentence
8-8 Months	Starts responding to name	42 Months	<300 words, No simple sentences
9-10 Months	Turns head diagonally and directly towards the sound source	Age	Red Flags for Socioadaptive
		2 Months	No social smile
		12 Months	No pointing
		3 Years	No pretend play
		4 Years	Does not respond to peers

## DEVELOPMENTAL MILESTONES

Child Neurology Division  
Department of Pediatrics, AIIMS  
New Delhi



For more details: <http://pedneuroaiims.org>

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gaba@neuroaiims.org



- [http://pedneuroaiims.org/neuromotor\\_impairments.html](http://pedneuroaiims.org/neuromotor_impairments.html)
- [http://pedneuroaiims.org/training\\_module\\_for\\_ile\\_attention\\_deficit\\_hyperactivity\\_disorder.html](http://pedneuroaiims.org/training_module_for_ile_attention_deficit_hyperactivity_disorder.html)
- <https://pedneuroaiims.chalopadho.com/login>



# E-LEARNING MODULES

In collaboration with

## The International Child Neurology Teaching Network (ICNTN)

The screenshot shows the homepage of the Pediatric Neurogenomics Symposium 2021. It features a dark blue header with navigation links. The main content area has a large white box with the symposium title and dates (Feb 4-6 March 2021). Below this, there are logos for various institutions including ICNTN, IGIB, and others. A registration button is visible at the bottom right.

**Pediatric Neurogenomics Symposium 2021**  
Feb 4-6 March 2021

A series week online symposium on advances in diagnosis and treatment of neurogenetic disorders.

**Register**

In collaboration with IGIB  
Developing modules  
including childhood neuro-  
developmental disorders  
with ICNTN/ICNA

The screenshot shows a YouTube video player. The video title is "Precision medicine in paediatric neurology: current status & future perspectives". The speaker is Helen Cross DBE, The Prince of Wales's Chair of Childhood Epilepsy, UCL Great Ormond Street Institute of Child Health, London & Young Epilepsy, Lingfield, UK. The video player includes a search bar and various controls.

**Precision medicine in paediatric neurology**  
*current status & future perspectives*

Helen Cross DBE  
The Prince of Wales's Chair of Childhood Epilepsy  
UCL Great Ormond Street Institute of Child Health, London & Young Epilepsy, Lingfield, UK

The screenshot shows a video player with the title "Recent Therapeutic advances in neuromuscular disorders". The speaker is J. Andoni URTIZBEREA, M.D., M.Sc., Professor at the University of Zaragoza, Spain. The video player includes a search bar and various controls.

**Recent Therapeutic advances in neuromuscular disorders**

J. Andoni URTIZBEREA, M.D., M.Sc.  
Professor at the University of Zaragoza, Spain

The screenshot shows a webinar page for "Gene Therapy for Childhood Neurological Disorders". It features a large red "Live" button and a "Register" button. The speaker is Steven Gray, PhD, Associate Professor at the University of Texas Southwestern Medical Center. The webinar is part of the ICNTN-AIIMS Neurogenomic Webinar Series and is scheduled for 22 April 2021, starting at 09:30 PM IST.

**ICNTN**  
International Child Neurology Teaching Network

**IGIB**  
Genetic Institute of Biotechnology

**ICNTN-AIIMS NEUROGENOMIC WEBINAR SERIES**

**GENE THERAPY FOR CHILDHOOD NEUROLOGICAL DISORDERS**

**22 APRIL 2021**

**Starts at 09:30 PM IST**

**Steven Gray, PhD**  
Associate Professor  
Department of Pediatrics  
University of Texas Southwestern Medical Center

**Register**

Learn about this emerging area of medicine to potentially bring treatments to hundreds or single-gene rare diseases.

Gene therapy is an emerging area of medicine, which is now showing profound therapeutic benefit for disorders such as spinal muscular atrophy. Dr. Gray will present the current state-of-the-art on AAV-mediated CNS gene transfer, and provide multiple examples of small and large animal models that have been successfully treated with AAVS vectors including Giant Axonal Neuropathy, Krabbe diseases, CLN7 Batten disease, CLN7 Batten disease, CLN5 Batten disease, and Aspartylglucosaminuria.

Organized by Center of Excellence & Advanced Research in Childhood Neurodevelopmental Disorders, Child Neurology Division, Department of Pediatrics, All India Institute of Medical Sciences, New Delhi, in collaboration with CGH Institute of Biotechnology & Integrative Biology (CIB-IBI), International Child Neurology Teaching Network (The International Child Neurology Association) and in association with the CGH-AIIMS Computational Genomics Center.