## **CURRICULUM VITAE**

Prof. (Dr.) Niraj Kumar MBBS, MD (General Medicine), DM (Neurology), PDF (Movement Disorders, Canada)

#### Personal details

Name: Niraj Kumar

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Languages Known: English, Hindi, Marathi

## **Experience Profile**

I am currently working as Professor & Head of Neurology at All India Institute of Medical Sciences (AIIMS), Bibinagar, Hyderabad. Before joining AIIMS Bibinagar, I worked as the founder Professor and Head of Neurology at AIIMS, Rishikesh, Uttarakhand from January 2018 to March 2023.

I have experience of working for more than 15 years in Neurology with special interest in Movement Disorders. I completed a two-year Movement Disorders fellowship at London Health Sciences Centre, Western University, London, Ontario, Canada. My primary area of research includes Parkinson's disease and other movement disorders along with sleep problems in patients with movement disorders. I have worked as a Principal investigator or Co-investigator on several research projects involving movement disorders, sleep medicine, demyelinating disorders and stroke. I have experience collaborating with other researchers, and have presented my research at international movement disorder meetings and published in a number of peer-reviewed journals.

## Research, Education and Clinical Contributions

#### A. Education

Year	Degree	Institution
2015-2017	PDF (Movement Disorders)	London Health Sciences Centre, London, Ontario, Canada
2007-2010	DM Neurology	Institute of Medical Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh, India
2003-2006	MD General Medicine	Government Medical College, Miraj, Shivaji University, Kolhapur, Maharashtra, India
1995-2001	M.B.B.S	Mahatma Gandhi Institute of Medical Sciences, Sevagram, Wardha, Maharashtra, India
1994-1995	A.I.S.S.C.E (XII <sup>th</sup> Standard)	Central Board of Secondary Education (CBSE); K.V. ONGC Panvel, India
1992-1993	A.I.S.S.E (X <sup>th</sup> Standard)	Central Board of Secondary Education (CBSE); K.V. ONGC Nazira, India

#### B. Details of medical education:

#### 1. Undergraduate medical education: MBBS Degree

Medical College/ Institute: Mahatma Gandhi Institute of Medical Sciences, Sevagram,

Wardha, Maharashtra, India

University: Nagpur University, India

Dates of MBBS Program: 17th August 1995 to 27th December 1999 Dates of Internship: 14th February 2000 to 13th February 2001

#### 2.Postgraduate training: MD General Medicine Degree

Medical College/ Institute: Government Medical College, Miraj, Maharashtra, India.

University: Shivaji University, Kolhapur, India

Jurisdiction: Medical Council of India (2001 03 1750/ MMC)

Duration of training: Three years

Dates of MD (General Medicine) Program: 12th July 2003 to 11th July 2006

#### 3. Specialty training: DM Neurology Degree

Medical College/ Institute: Institute of Medical Sciences, Varanasi, India.

University: Banaras Hindu University, Varanasi, India

Jurisdiction: Medical Council of India (2001 03 1750/ MMC)

Duration of training: Three years

Dates of DM (Neurology) Program: 1st August 2007 to 31st July 2010

#### 4. Specialty training: Post-doctoral fellowship in Movement disorders

Medical College/ Institute: London Health Sciences Centre, London, Ontario, Canada

University: University of Western Ontario, London, Canada

Jurisdiction: College of Physicians and Surgeons of Ontario (College Register no. 106926)

Duration of training: Two years

Dates of PDF (Movement disorders) Program: June 15, 2015 to June 14, 2017.

#### C. Professional/Academic Experiences:

- **Professor & Head, Neurology (March 2023 to date):** All India Institute of Medical Sciences, Bibinagar (Hyderabad Metropolitan Region), Telangana, India.
- Professor & Head, Neurology (July 2022 March 2023): All India Institute of Medical Sciences, Rishikesh, Uttarakhand, India.
- Additional Professor & Head, Neurology (January 2018 June 2022): All India Institute of Medical Sciences, Rishikesh, Uttarakhand, India.
- Associate Professor, Neurology (November 2014 December 2017): Indira Gandhi Institute of Medical Sciences, Patna, Bihar, India.
- Clinical fellowship in Parkinson's disease and movement disorders (June 2015-June 2017): London Health Sciences Centre, University of Western Ontario, London, Canada.
- Assistant Professor, Neurology (November 2010 November 2014): Indira Gandhi Institute of Medical Sciences, Patna, Bihar, India.
- Senior Residency in Neurology (August 2007 July 2010): Institute of Medical Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh, India.
- Junior Residency in General Medicine (July 2003 July 2006): Government Medical College, Miraj, Maharashtra, India.

#### D. Medical license:

#### 1. Current medical license number: 39898/BCMR (MCI)

Type: Permanent

Duration: May 2011 to date

Jurisdiction: Medical Council of India (Bihar Council of Medical Registration)

#### 2. Previous medical license number: 2001 03 1750/ MMC

Type: Temporary

Duration: March 2001 to December 2016

Jurisdiction: Medical Council of India (Maharashtra Medical Council)

#### 3. Previous medical license number: College Register number 106926

Type: Temporary

Duration: June 2015 to June 2017

Jurisdiction: College of Physicians and Surgeons of Ontario, Canada

#### E. Awards and Honours:

1. **2021:** I was interviewed by Movement Disorders Society of India (MDSI) on MDSI-Vaani Podcasts for my work "Impact of home confinement during COVID-19 pandemic on sleep parameters in Parkinson's disease. Sleep medicine. 2020 Nov 23; 77: 15-22."

- 2. **2019:** International Parkinson's disease and movement disorders society travel grant for presenting paper in International Congress of Parkinson's disease and Movement disorders at Nice, France from September 22-26, 2019.
- 3. **2016:** Selected to present a movement disorder video case at MDS video challenge in International Congress of Parkinson's disease and Movement disorders at Berlin, Germany from June 19-23, 2016.

#### F. Publications: (Peer reviewed)

(\*Corresponding author; \*Shared first-author)

1. Madhaw G, Gupta R, Dhamija P, **Kumar N\*.** A Randomized, Open Label, Exploratory Trial Comparing Efficacy of Amantadine and Ropinirole in Restless Legs Syndrome. Sleep Science. 2023 Jun;16(02):174-82.

- 2. Andrews SV, Kukkle PL, Menon R, Geetha TS, Goyal V, Kandadai RM, Kumar H, Borgohain R, Mukherjee A, Wadia PM, Yadav R,...Kumar N,....Ramprasad VL. The genetic drivers of juvenile, young, and early-onset Parkinson's Disease in India. medRxiv. 2023:2023-06.
- 3. Wall JD, Sathirapongsasuti JF, Gupta R,....Kumar N,...Peterson AS. South Asian medical cohorts reveal strong founder effects and high rates of homozygosity. Nature Communications. 2023 Jun 8;14(1):3377.
- 4. Samanta S, Bisht M, Kanimozhi M, **Kumar N**, Handu SS. Association of depression with disease duration, quality of life and adherence in Parkinson's disease: A cross sectional study. Journal of Family Medicine and Primary Care. 2023;12(7):1406-11.
- 5. Desai I, **Kumar N\*.** Impulse-Control Disorders and Restless Legs Syndrome in Parkinson's Disease: Are they close together or far apart? Annals of Indian Academy of Neurology. 2023 Apr 28.
- 6. Dhar N, Madhaw G, **Kumar N\*.** External anal- and Urethral-sphincter Electromyography for Differentiating MSA-P, PD and PSP: Using a needle to sort the haystack! Annals of Indian Academy of Neurology. 2023 Jun 12.
- 7. Singh M, Dev R, Khokhar SK, **Kumar N\***, Saini J, Saxena S. Resting state functional connectivity in patients with minimally disabled Parkinson's disease: A case-control study. Annals of Movement Disorders. Annals of Movement Disorders. 2023 Jun 16.
- 8. Kumar R, Krishnan V, Das A, **Kumar N**, Gupta R. Modification and Validation of a Diagnostic Questionnaire for Restless Legs Syndrome: Modified- Restless legs Syndrome Diagnostic Questionnaire (m-RLS-DQ). Annals of Indian Academy of Neurology. 2023 Apr 28.
- 9. Madhaw G, **Kumar N\*.** Dietary and Environmental risk factors in Parkinson's disease and Alzheimer's disease: Beware of your food plate and your surroundings! Annals of Indian Academy of Neurology. 2023 Mar;26(2):101.
- 10. Soni S, Duggal B, Upadhyay J, Basu-Ray I, Kumar N, Bhadoria AS. Does left atrial appendage morphology and dimension differ amongst etiological stroke subtypes in patients without known Atrial Fibrillation? Results from the Left Atrial Appendage morphology and dimension assessment by TEE in patients with stroke without known Atrial Fibrillation (LAMDA-STROKE) Study. Indian Heart J. 2023 March 7; S0019-4832(23)00042-1.
- 11. Dhar N, Kumar M, Tiwari A, Samanta R, Bhadoriya AS, Vivekanandhan S, Saxena S, **Kumar N\*.** Comparison of Clinico-radiological profile, Optical Coherence Tomography parameters, and outcome in MOGAD and Neuromyelitis Optica Spectrum Disorder Subtypes: A prospective observational study, Journal of Neurosciences in Rural Practice. January 2023: 1-13.
- 12. Juyal R, Muthusamy H, **Kumar N.** SNOAR: a new regression approach for the removal of ocular artifact from multi-channel electroencephalogram signals. Medical & Biological Engineering & Computing. 2022 Oct 17:1-7.

- 13. Desai I, Tiwari A, Kumar M, Singh J, Dhar N, **Kumar N\*.** Comparison of risk factors, clinicoradiological profile and outcome in patients with acute, subacute and chronic cerebral venous sinus thrombosis. Annals of Indian Academy of Neurology. 2022 Nov 1;25(6):1233-5.
- 14. Radhakrishnan DM, **Kumar N\***, Desai I, Tiwari A, Kumar M, Malhotra S, Negi G. Intravenous Immunoglobulin-induced Hemolysis. JAPI. 2022 Oct; 70.
- 15. Desai I, **Kumar N\*.** Movement disorder emergencies: When "Too Much" or "Too Little" movement needs urgent attention !!. Annals of Indian Academy of Neurology. 2022 Sep 1;25(5):801-2.
- 16. Desai I, **Kumar N\***. Diagnosing Subtypes of Progressive Supranuclear Palsy: Can: 18: F-FDG PET/CT Imaging Guide Our Way?. Annals of Indian Academy of Neurology. 2022 Sep 1;25(5):796-8.
- 17. Yadav R, Kumar M, Kumar N, Chacham S. Pyridoxine in isoniazid-induced psychosis. Sudanese Journal of Paediatrics. 2022;22(2):190.
- 18. Kumar M, Dhar N, Madhaw G, Tiwari A, **Kumar N\*.** Guillain-barre syndrome associated with scrub typhus infection: Uncommon or under-reported! Annals of Indian Academy of Neurology. 2022 Nov 1;25(6):1231.
- 19. Kumar R, Tripathy M, **Kumar N\***, Anand RS. Management of Parkinson's disease dysarthria: Can artificial intelligence provide the solution? Annals of Indian Academy of Neurology. 2022 Sep 1;25(5):810-6.
- 20. Kukkle PL, Geetha TS, Chaudhary R, Sathirapongsasuti JF, Goyal V, Kandadai RM, Kumar H, Borgohain R, Mukherjee A, Oliver M, Sunil M.....Kumar N....Gupta R, Ramprasad VL. Genome-Wide Polygenic Score Predicts Large Number of High-Risk Individuals in Monogenic Undiagnosed Young Onset Parkinson's Disease Patients from India. Advanced Biology. 2022 Nov;6(11):2101326.
- 21. **Kumar N**, Goyal A, Hussain A, Saini LK, Chawla O, Arora P, Daga R, Tikka SK, Goyal SK, Kanchan S, Desai S. SARS-CoV-2 infection is associated with increased odds of insomnia, RLS and dream enactment behavior. Indian Journal of Psychiatry. 2022 Jul 1;64(4):354-63.
- 22. Dhar N, Kumar M, Tiwari A, Desai I, Madhaw G, **Kumar N\*.** Tenecteplase and alteplase for thrombolysis of acute ischemic stroke within 4.5 hours: An efficacy and safety study. Annals of Indian Academy of Neurology. 2022 Sep 1;25(5):897-901.
- 23. Kumari S, Dhar M, Pathania M, **Kumar N**, Kulshrestha P, Singh A. Yoga as an Adjuvant therapy in management of migraine-An open label randomised trial. Journal of Family Medicine and Primary Care. 2022 Sep 1;11(9):5410-6.
- 24. Bhatia R, Haldar P, Puri I, Srivastava MP, Bhoi S, Jha M, Dey A, Naik S, Guru S, Singh MB, Vishnu VY,...Kumar N,...Chowdhury N. Study Protocol: IMPETUS: Implementing a

- Uniform Stroke Care Pathway in Medical Colleges of India: IMPETUS: Stroke. Annals of Indian Academy of Neurology. 2022 Jul 1;25(4):640-6.
- 25. Desai I, Gupta R, Kumar M, Tiwari A, **Kumar N\***. Sleep disorders in patients with Parkinson's disease during COVID19 pandemic: A case-control study. Annals of Indian Academy of Neurology. 2022; 25(3):394-400.
- 26. Manchanda R, Madhaw G, Shree R, Radhakrishnan DM, Kumar A, **Kumar N\***. Linear morphea: A mimicker of motor neuron disease. Annals of Indian Academy of Neurology. 2022 Mar 1;25(2):281.
- 27. Chaturvedi J, **Kumar N**, Shakya J, Sharma AK. Cervical Osteoma in Hereditary Multiple Exostoses. J Pediatr Neurosci. 2022; 16(3): 240-246.
- 28. **Kumar N,** Gupta R. Disrupted Sleep During a Pandemic. Sleep Medicine Clinics. 2022 Mar 1;17(1):41-52.
- 29. Madhaw G<sup>#</sup>, **Kumar N**<sup>#\*</sup>, Divya MR, Shree R. Infantile Ascending Hereditary Spastic Paralysis with extrapyramidal and extraocular manifestations associated with a novel ALS2 mutation. Movement Disorders Clinical Practice. 2021 Nov 28; 9(1): 118-121.
- 30. **Kumar N\***, Prashant LK, Goyal V. Wilson's Disease update: An Indian perspective. Annals of Indian Academy of Neurology. 2021 Sep 1;24(5):652-663.
- 31. Kukkle PL, Goyal V, Geetha TS, Kandadai RM, Kumar H, Borgohain R, Mukherjee A, Wadia PM, Ravi Y, Desai S, **Kumar N**, Gupta R, Biswas A, Pal P, Muthane U, Das SK, Quinn N, Lakshmi RV. Clinical Study of 668 Indian Subjects with Juvenile, Young and Early Onset Parkinson's Disease. The Canadian journal of neurological sciences. Le journal canadien des sciences neurologiques. 2022 Jan; 49(1): 93-101.
- 32. Gupta R, Gupta R, **Kumar N**, Rawat VS, Ulfberg J, Allen RP. Restless Legs Syndrome among subjects having chronic liver disease: A systematic review and meta-analysis. Sleep Medicine Reviews. 2021 Mar 11:101463.
- 33. Madhaw G, Radhakrishnan DM, **Kumar N\*.** Syringomyelia After Spinal Anaesthesia: A Case Report. Tropical Doctor. 2022 Jan; 52(1): 178-181.
- 34. Radhakrishnan DM, Bhasi A, Saurya S, Shree R, **Kumar N\*.** Spinal Intramedullary Neurocysticercosis An Unusual Cause of Paraparesis. J Assoc Physicians India. 2021;69(9):11-12.
- 35. **Kumar N\***, Gupta R. Impact of COVID-19 pandemic on Parkinson's disease: A tale of fears and sorrows! Annals of Indian Academy of Neurology. 2021 Mar 1;24(2):121-123.
- 36. Kataria N, Yadav P, Kumar R, **Kumar N**, Kumar M, Kant R, Kalyani CV. Effect of Vitamin B6, B9, and B12 Supplementation on Homocysteine Level and Cardiovascular Outcomes in

- Stroke Patients: A Meta-Analysis of Randomized Controlled Trials. Cureus. 2021 May 11; 13(5): e14958.
- 37. Desai I, Tiwari A, Singh MK, **Kumar N\*.** Successful thrombolysis in essential thrombocythemia-related acute ischaemic stroke. BMJ Case Reports CP. 2021 May 1;14(5):e242925.
- 38. Gupta R, **Kumar N.** "Sleep Related Abnormal Sexual Behaviors: Uncommon yet Grave! " J Psychosexual Health. (2021); 3(2): 115-116.
- 39. **Kumar N\***, Samanta R, Madhaw G, Radhakrishnan DM, Kumari S. Anti-NMDA Receptor Encephalitis Associated with Coats-Like Retinal Telangiectasia. Movement Disorders Clinical Practice. 2021 Apr;8(3):483-485.
- 40. **Kumar N\***, Prakash V. Pediatric Hemichorea-Hemiballismus Associated with Nonketotic Hyperglycemia: A Case Report and Review of the Literature. Journal of Movement Disorders. 2021;14(3): 248-250.
- 41. Desai I, Manchanda R, **Kumar N\***, Tiwari A, Kumar M. Neurological manifestations of coronavirus disease 2019: exploring past to understand present. Neurological Sciences. 2021; 42(3):773-785.
- 42. **Kumar N\***, Gupta R, Kumar H, Mehta S, Rajan R, Kumar D, Kandadai RM, Desai S, Wadia P, Basu P, Mondal B. Impact of home confinement during COVID-19 pandemic on sleep parameters in Parkinson's disease. Sleep Medicine. 2021; 77:15-22.
- 43. Dhar N, Madhaw G, Kumar M, **Kumar N\***, Tiwari A, Jatale V. Non-COVID Neurological Emergencies: A Silent Killer Going Unnoticed during COVID-19 Pandemic. Journal of Neurosciences in Rural Practice. 2021; 12(3):461-469.
- 44. Kumar R, Kataria N, Radhakrishnan DM, **Kumar N**. Clinico-epidemiological profile of stroke patients in the Himalayan Subcontinent–A retrospective study. Natl J Physiol Pharm Pharmacol. 2021; 11(1): 17-22
- 45. **Kumar N\***, Gupta R, Kumar H, Mehta S, Rajan R, Kumar D, Kandadai RM, Desai S, Wadia P, Basu P, Mondal B. Impact of home confinement during COVID-19 pandemic on Parkinson's disease. Parkinsonism & related disorders. 2020; 80: 32-34.
- 46. **Kumar N\***, Kumar D. Lentiform Fork Sign in Metabolic Acidosis. Annals of Neurology. 2021 Jan;89(1):188-189.
- 47. Radhakrishnan DM, Shree R, Madhaw G, Manchanda R, Mahadevan A, **Kumar N\*.** Spinal Muscular Atrophy and Progressive Myoclonic Epilepsy: A Rare Association. Journal of Neurosciences in Rural Practice. 2021 Jan;12(01):210-2.

- 48. Singh SK, **Kumar N**. Extra-axial cerebellopontine angle medulloblastoma with multiple intracranial metastases in adult: A rare case report with a review of literature. Asian J Neurosurg. 2020 Aug;15(3); 15(3):695-698.
- 49. Rajan R, Divya KP, Kandadai RM, Yadav R, Satagopam VP, Madhusoodanan UK, Agarwal P, **Kumar N,** Ferreira T, Kumar H, Sreeram Prasad AV et al. Genetic Architecture of Parkinson's Disease in the Indian Population: Harnessing Genetic Diversity to Address Critical Gaps in Parkinson's Disease Research. Frontiers in neurology. 2020 Jun 18;11:524.
- 50. Adams S, **Kumar N**, Rizek P, Hong A, Zhang J, Senthinathan A, Mancinelli C, Knowles T, Jog M. Efficacy and Acceptance of a Lombard-response Device for Hypophonia in Parkinson's Disease. Canadian Journal of Neurological Sciences. 2020 Sep;47(5):634-41.
- 51. Kumar R, Kataria N, **Kumar N**, Kumar M, Bahurupi Y. Poststroke depression among stroke survivors in Sub-Himalayan region. Journal of Family Medicine and Primary Care. 2020;9(7):3508-3513.
- 52. Gupta R, Grover S, Basu A, Krishnan V, Tripathi A, Subramanyam A, Nischal A, Hussain A, Mehra A, Ambekar A, Saha G, Mishra KK, Bathla M, Jagiwala M, Manjunatha N, Nebhinani N, Gaur N, **Kumar N** et al. Changes in sleep pattern and sleep quality during COVID-19 lockdown. Indian Journal of Psychiatry. 2020 Jul;62(4):370-378.
- 53. Samanta R, Jayaraj S, Waghamare SR, Puthalath AS, **Kumar N\*.** Teaching Neuroimages: Neurocysticercosis with unilateral vision loss. Neurology. 2020 Apr 13;96(15): e2035-2036.
- 54. Kumar A, Gupta K, Tyagi AK, Varshney S, **Kumar N.** Isolated Acute Sphenoid Fungal Sinusitis with Cavernous Sinus Thrombosis: Our Experience. Indian J Otolaryngology Head Neck Surg. 2020 Aug 19:1-7.
- 55. Dhar N, Shree R, Radhakrishnan DM, **Kumar N\*.** Hearing Loss in Migraine: An Uncommon Manifestation of a Common Disorder. Journal of Neurosciences in Rural Practice. 2020 Jul;11(03):508.
- 56. Manchanda R, Dhar N, Kumar M, Kumar N, Tiwari A. Thickened sural nerve in Hansen's disease. QJM: An International Journal of Medicine. 2021 May 19;114(3):202-203.
- 57. Radhakrishnan DM, Samanta R, Manchanda R, Kumari S, Shree R, **Kumar N\*.** Toxic optic neuropathy: A rare but serious side effect of chloramphenicol and ciprofloxacin. Annals of Indian Academy of Neurology. 2020 May;23(3):413-415.
- 58. **Kumar N\***, Prakash V. Lip Tremor in Hypocalcemia. Journal of Neurosciences in Rural Practice. 2020;11(01):212-213.
- 59. Shree R, Madhaw G, Manchanda R, Radhakrishnan DM, **Kumar N\*.** Steroid responsive catatonia: A case of Hashimoto's encephalopathy. Annals of Movement Disorders. 2020;3(1):51.

- 60. **Kumar N\***, Kumari S, Singh SK, Kumar D. Painful tic convulsif caused by posterior fossa arteriovenous malformation. Annals of Movement Disorders. 2019;2(3):136.
- 61. Singh A, Mahesh M, Agrawal A, **Kumar N**, Verma R, Mittal SK, Kumar B. Total external ophthalmoplegia: First clinical manifestation of Sjögren's syndrome. Strabismus. 2019;27(4):218-22.
- 62. Alamos MF, Sharma S, **Kumar N**, Jog MS. 'Cognitive freezing': A newly recognized episodic phenomenon in Parkinson's disease. Parkinsonism & related disorders. 2019 Aug; 65:49-54.
- 63. **Kumar N**, Murgai A, Jog M. Neurological worsening after Implantable Pulse Generator implantation. Can J Neurol Sci. 2019; 46(5): 1-6.
- 64. Madhaw G, Samanta R, Kumari S, Radhakrishnan DM, Shree R, **Kumar N\*.** Lisch Nodule Ophthalmologic marker of Neurofibroma-1. QJM: An Int. J of Med. 2019 December 1;112(12): 934-935.
- 65. Radhakrishnan DM, Yeshwant S, **Kumar N\***, Jose A, Shree R. Acute onset vision loss as a presenting manifestation of Carcinoma Lung. Annals of Indian Academy of Neurology. 2020; 23 (3):407-409.
- 66. **Kumar N\***, Kumar D. Teaching Video Neuroimages: Myoclonus as the presenting feature of Wilson's disease. Neurology. 2019 Apr 2;92(14): e1667-e1668.
- 67. **Kumar N\***, Gupta P, Meena MK. Paralytic rabies: A Guillain-Barre syndrome mimic. QJM: An Int. J of Med. 2019 May 1;112(5): 365-366.
- 68. **Kumar N\***, Kumar D. Thalamic hamartoma presenting with tremor. J of Neurosci Rural Pract 2019; 10(1): 123-124.
- 69. Radhakrishnan DM, Jose A, **Kumar N\***, Warrier AR, Shree R. Retinal astrocytic hamartoma-ophthalmologic marker of tuberous sclerosis. QJM: An Int. J of Med. 2019 June; 112(6): 451-452.
- 70. Rizek P<sup>#</sup>, **Kumar N**<sup>#</sup>, Jog MS. Exploring Parkinson's disease: A question and answer-based approach. Annals of Mov Disord. 2018; 1(1): 30-38.
- 71. **Kumar N\***, Ranjan A, Kumar A, Kumar B. Teaching Neuroimages: Isolated pontine involvement in subacute sclerosing panencephalitis. Neurology 2018; 91(3): e293-e294.
- 72. **Kumar N**, Murgai A, Naranian T, Jog M, Fasano A. Levodopa-carbidopa intestinal gel therapy after deep brain stimulation. Mov Disord. 2018; 33(2): 334-335.
- 73. Samotus O, **Kumar N**, Rizek P, Jog M. Botulinum Toxin Type A Injections as Monotherapy for Upper Limb Essential Tremor Using Kinematics. Can J Neurol Sci. 2018 Jan; 45(1): 11-22.
- 74. Murgai AA, **Kumar N**, Jog M. Tourette-like Syndrome in a patient with RBFOX1 deletion. Movement Disorders Clinical Practice. 2017; Sep. 15:1-2

- 75. Rizek P<sup>#</sup>, **Kumar N**<sup>#</sup>, Jog M. Anti-Ma2 associated Encephalitis secondary to Hodgkin's Lymphoma. Can J Neurol Sci. 2017; Sep. 7:1-2.
- 76. **Kumar N**, Mendonca DA, Jog M. Teaching Video Neuroimages: Lithium-induced reversible Pisa syndrome. Neurology 2017; 88 (18): e184.
- 77. **Kumar N**, Rizek P, Jog M. Movement disorders in 18p deletion syndrome: A case report and review of literature. Can J Neurol Sci. 2017;44(4):441-443.
- 78. Rizek P, Kumar N. Restless legs syndrome. CMAJ. 2017;189(6): E245.
- 79. **Kumar N**, Jog M. Fahr's disease presenting as late-onset levodopa-responsive parkinsonism. Can J Neurol Sci. 2017;44(3):322-323.
- 80. **Kumar N**, Rizek P, Sadikovic B, Adams PC, Jog M. Movement disorders associated with Hemochromatosis. Can J Neurol Sci. 2016;43(6):801-808.
- 81. **Kumar N**, Rizek P, Jog M. Niemann-Pick disease type C in a 65-year-old patient. Neurology 2016;87(8): e79-81.
- 82. **Kumar N**, Rizek P, Jog M. Neuroferritinopathy: pathophysiology, presentation, differential diagnoses and management. Tremor and other hyperkinetic movements. 2016; 6: 355
- 83. Rizek P, **Kumar N**, Jog M. Updates in the diagnosis and treatment of Parkinson disease. CMAJ. 2016;188(16):1157-1165.
- 84. Rizek P, **Kumar N**, Sharma N, Jog M. Brainstem developmental venous anomaly causing hemifacial spasm- case report and review of literature. Canadian Journal of Neurological Sciences. 2016;43 (4):606-608.
- 85. **Kumar N**, Joshi D, Patidar SP, Ansari AZ. Psuedohypoparathyroidism presenting with refractory seizures: an interesting report of 3 cases. International Journal of Medicine and Pharmaceutical Sciences. 2015;3(5):59-64.
- 86. **Kumar N**, Joshi D, Ansari AZ, Patidar SP, Mishra VN, Chaurasia RNC. Clinical, Biochemical and Radiological Profile of Wilson's disease from a Tertiary Care Referral Centre in India. Archives of Medicine. 2015;7(4):13.
- 87. Patidar SP, Joshi D, Mishra VN, Chaurasia RN, Ansari AZ, **Kumar N**. Diagnostic yield of Sural Nerve Biopsy: study form a Tertiary Care Referral Centre in India. Journal of Neurology and Neuroscience. 2015;6 (2):8.
- 88. **Kumar N**, Patidar SP, Joshi D, Kumar N. Focal Myelomalacia and Syrinx Formation after Spinal Anaesthesia. JAPI. 2010; 58:450-451.
- 89. Joshi D, **Kumar N**, Rai AK. Dermatomyositis presenting with rhabdomyolysis and acute renal failure; an uncommon manifestation. Annals of Indian Academy of Neurology. 2009;12 (1):45-47.

90. Joshi D, **Kumar N**, Rai AK. Recurrent Reversible Jaundice, Neuropsychiatric Manifestations, Dementia and Ataxia as Manifestations of Vitamin B12. JAPI. 2008;56: 476.

#### G. Chapters in Books:

(\*Corresponding author)

- 1. Desai I, **Kumar N\*.** Headache Medicine. In: Editor: Gupta R, Tikka SK. Psychiatry for Beginners. (Elsevier publication; In review)
- 2. Desai I, **Kumar N\*.** Tic Disorders. In: Editor: Gupta R, Tikka SK. Psychiatry for Beginners. (Elsevier publication; In review)
- 3. **Kumar N\***, Dhar N. Behavioural symptoms with stroke. India Point of Care 2022. (Elsevier publication; In press).
- 4. Madhaw G, **Kumar N\*.** Sleep in Multiple sclerosis. In: Editor: Gupta R, Pandi-Perumal SR, Neubauer DN. Sleep and Neuropsychiatric Disorders. Springer, Singapore. 2022.
- 5. Desai I, **Kumar N\*.** Sleep disorders in myopathy. In: Editor: Gupta R, Pandi-Perumal SR, Neubauer DN. Sleep and Neuropsychiatric Disorders. Springer, Singapore. 2022.
- 6. **Kumar N\***, Madhaw G. Infections and Movement Disorders. In: Chief Editor: Bhattacharya K. "Parkinson's disease and Movement Disorders (2<sup>nd</sup> Edition)," a publication of The Parkinson's Disease and Movement Disorder Society. 2022.
- 7. Singh G, Sylaja P, **Kumar N.** Section 8: Neurology including commentaries on selected recent movement disorder articles. In: Chief Editor: Gurpreet S Wander. Year Book of Medicine 2019. Published by Jaypee.
- 8. Rizek P, **Kumar N**, Jog M. Management of Advanced Parkinson's Disease. In: Editor: Amit Batla & Vibha Deepti. "Understanding Parkinsonism: The Clinical Perspective." 2017.

#### H. Book authored:

1. Jog M, Ganguly J, Kumar N, Sharma S, Jog M. MovDis Manual of Movement Disorder 2020

#### I. Patents and copyrights:

1. Copyright obtained for Restless legs syndrome diagnostic questionnaire (RLS-DQ) from Copyright Office, Government of India in April 2022 vide No. 4168/2022-CO/L

#### J. Selected Platform / Poster presentation in conferences:

- 1. Thaparia A, Dev R, **Kumar N**, Saxena S. Post-contrast susceptibility weighted imaging vs post contrast T1-weighted imaging for evaluation of brain lesions. Presented at Indian Radiological and Imaging Association national conference from March 22-26, 2022, Bangalore.
- 2. Saini A, Dev R, **Kumar N**, Bhadoria AS, Roul PK, Saxena S. Role of Basilar Artery Displacement and Incomplete Circle of Willis on Magnetic Resonance Imaging in Prediction of Severity of Migraine as assessed by MIDAS Questionnaire"- Scientific Poster Presentation at European Congress of Radiology 2022.
- 3. Singhal T, Parneet S, Negi M, **Kumar N**, Narayan ML. Semiquantitative evaluation of striatal 99mTc-TRODAT-1 uptake in Idiopathic Parkinson's Disease & atypical Parkinsonism. Oral presentation at 53<sup>rd</sup> Annual National Conference of Society of Nuclear Medicine India (SNMI CON- 2021), held on 16-18 Dec' 2021, at Hyderabad, India
- 4. Thaparia A, Dev R, **Kumar N**, Saxena S. Use of Gadolinium enhanced susceptibility weighted imaging for increased conspicuity of infectious and metastatic brain lesions. Oral Scientific Presentation at Korean Congress of Radiology 2021 at Seoul from September 1-4, 2021.
- 5. Saini A, Saxena S Dev R, Roul PK, Bhadoria AS, **Kumar N**. "Association of Basilar Artery Displacement with Migraine with Aura and its Severity"- Oral Scientific Presentation at Korean Congress of Radiology 2021 at Seoul from September 1-4, 2021.
- 6. Madhaw G, Tiwari A, Kumar M, Radhakrishnan DM, Shree R, **Kumar N**. Movement disorders: a window to autoimmune encephalitis. Oral presentation in 5<sup>th</sup> Annual Conference of Movement Disorders Society of India (MDSICON) 2020 at Trivandrum from January 31-February 2, 2020.
- 7. Madhaw G, Tiwari A, Kumar M, Radhakrishnan DM, Shree R, **Kumar N**. stiffer, stiffest: story of a 19-year-old boy- clinical grand round in 5<sup>th</sup> Annual Conference of Movement Disorders Society of India (MDSICON) 2020 at Trivandrum from January 31- February 2, 2020.
- 8. Dhar N, Tiwari A, Kumar M, Radhakrishnan DM, Shree R, **Kumar N.** Knowledge café session –Case presentation- Look beyond what you see. In 5<sup>th</sup> Annual Conference of Movement Disorders Society of India (MDSICON) 2020 at Trivandrum from January 31-February 2, 2020.
- 9. Desai I, **Kumar N**, Shree R, Radhakrishnan DM. Apraxia of eyelid opening: an unusual presentation of SCA-3. In the 27<sup>th</sup> Annual Conference of Indian Academy of Neurology at Hyderabad from October 3-6, 2019.
- 10. Madhaw G, Shree R, Radhakrishnan DM, **Kumar N**. Case series of sporadic sCJD from Himalayan belt of India. In the 27<sup>th</sup> Annual Conference of Indian Academy of Neurology at Hyderabad from October 3-6, 2019.

- 11. **Kumar N**, Madhaw G, Radhakrishnan DM, Shree R, Samanta R, Kumari S. Pediatric anti-N-methyl-D-aspartate receptor encephalitis associated with Coat's-like retinal telangiectasia." In International Congress on Parkinson and Movement Disorders Society at Nice, France in September 2019.
- 12. Shree R, Dhar N, Radhakrishnan DM, Madhaw G, **Kumar N.** Spectrum of autoimmune /paraneoplastic encephalitis: Experience from tertiary care centre of northern India. In the Indian Committee for Treatment and Research in Multiple Sclerosis (ICTRIMS) annual conference at Kolkata from August 17-18, 2019.
- 13. Dhar N, Shree R, Radhakrishnan DM, **Kumar N**. Clinico-radiological profile & therapeutic response of MOG associated demyelinating disorder from Himalayan belt in northern India. In the Indian Committee for Treatment and Research in Multiple Sclerosis (ICTRIMS) annual conference at Kolkata from August 17-18, 2019.
- 14. Manchanda R, Shree R, Radhakrishnan DM, **Kumar N**. Guillain-Barre syndrome (GBS): a rare complication of scrub typhus. In the 27<sup>th</sup> Annual Conference of Indian Academy of Neurology at Hyderabad from October 3-6, 2019.
- 15. **Kumar N,** Gudhate A. Sporadic CJD presenting as serotonin syndrome. In the 26<sup>th</sup> Annual Conference of Indian Academy of Neurology in Sept. 2018 at Raipur, India.
- 16. **Kumar N**, Joshi D. Biochemical profile of Neurological Wilson's disease. Presented the paper in the 12<sup>th</sup> World congress on Parkinson's disease and related disorders held from November 12-15, 2017 at Ho Chi Minh City, Vietnam.
- 17. Samotus O, **Kumar N,** Memar S, Jog M. Spinal cord stimulation reduces freezing of gait and improves gait in advanced parkinson's disease. Poster presented at International Parkinson and Movement Disorder Society's 21<sup>st</sup> International Congress of Parkinson's Disease and Movement Disorders from June 4-8, 2017 at Vancouver, Canada.
- 18. **Kumar N**. Presented the case entitled, "Anti-Ma2 encephalitis associated with Hodgkin's lymphoma" in the 9<sup>th</sup> Annual MDS Video Challenge during the International Parkinson and Movement Disorder Society's 20<sup>th</sup> International Congress of Parkinson's Disease and Movement Disorders on June 22, 2016 at Berlin, Germany.
- 19. **Kumar N**, Joshi D. To study the response of treatment in patients of neurological Wilson's disease. Poster presented at the International Parkinson and Movement Disorder Society's 18<sup>th</sup> International Congress of Parkinson's Disease and Movement Disorders from June 8-12, 2014 at Stockholm, Sweden.
- 20. **Kumar N**, Joshi D. To study MRI Brain findings in neurological Wilson's disease. Movement disorders. Poster presented at the International Parkinson and Movement Disorder Society's 17<sup>th</sup> International Congress of Parkinson's Disease and Movement Disorders from June 16-20, 2013 at Sydney, Australia.
- 21. **Kumar N**. Hyperglycemia with chorea. Poster presented at the International Parkinson and Movement Disorder Society's 17<sup>th</sup> International Congress of Parkinson's Disease and

- Movement Disorders from June 16-20, 2013 at Sydney, Australia.
- 22. **Kumar N**, Joshi D. Clinical, biochemical and radiological profile of Wilson's disease and effect of treatment. In the oral Session 9 in 22nd meeting of European Neurology Society in June 2012 at Prague, Czech Republic.
- 23. Chaurasia RN, Joshi D, Patidar SP, Ansari AZ, **Kumar N**. Fecal incontinence: A rare presentation of tubercular syrinx. In the 18th Annual Conference of Indian Academy of Neurology in September 2010 at Trichy, India
- 24. Patidar SP, Joshi D, Chaurasia RN, **Kumar N**, Ansari AZ, Rai AK, Desai T. Pentazocine induced fibromyositis: mimicking as fascioscapulohumeral muscle dystrophy. In the 18th Annual Conference of Indian Academy of Neurology in September 2010 at Trichy, India
- 25. Ansari AZ, Joshi D, Chaurasia RN, **Kumar N**, Patidar SP, Rai AK, Desai T. Frontal lobe syndrome: A rare presentation of Tuberculoma. In the 18th Annual Conference of Indian Academy of Neurology in September 2010 at Trichy, India.
- 26. Joshi D, **Kumar N**, Patidar SP. Clinical profile of chronic daily headache: study from a tertiary referral centre. In the 19th World Congress of Neurology in October 2009 at Bangkok, Thailand.
- 27. Joshi D, **Kumar N**, Patidar SP. Focal myelomalacia and syrinx formation after spinal anaesthesia: a case report. In the 19th World Congress of Neurology in October 2009 at Bangkok, Thailand.
- 28. Joshi D, **Kumar N**, Patidar SP. Monomelic amyotrophy associated with Becker nevus: a case report. In the 19th World Congress of Neurology in October 2009 at Bangkok, Thailand.
- 29. **Kumar N**, Joshi D, Patidar SP, Kumar N. Pseudohypoparathyroidism presenting with refractory seizures: An interesting report of three cases. In the 17th Annual Conference of Indian Academy of Neurology in September 2009 at Cochin, India.
- 30. Joshi D, **Kumar N**, Patidar SP, Kumar N. Cranial neuritis in pure neuritic leprosy: A report of three cases. In the 17th Annual Conference of Indian Academy of Neurology in September 2009 at Cochin, India.
- 31. **Kumar N**, Joshi D, Rai AK. Wilson's disease in Eastern UP. In the 16th Annual Conference of Indian Academy of Neurology in October 2008, New Delhi, India.
- 32. Joshi D, **Kumar N**, Rai AK. Non-neurological manifestations of Vitamin B12 deficiency. In the 16th Annual Conference of Indian Academy of Neurology in October 2008, New Delhi, India.
- 33. Rai AK, Joshi D, **Kumar N**. Etiological spectrum of non-compressive myelopathy in a tertiary health care centre. In the 16th Annual Conference of Indian Academy of Neurology in October 2008, New Delhi, India.

#### K. Invited talks/ Guest Lectures/ Faculty in Conferences/workshops:

- 1. Invited talk on "Metabolic movement disorders" in the Indian Academy of Neurology Summer School 2023 on June 30-July 2, 2023 at Hyderabad.
- 2. Invited talk on "Sleep-related movement disorders" in the 9<sup>th</sup> Annual Conference of The Indian Psychiatry Society-Telangana State Branch (TSPSYCON) on June 24-25, 2023 at Hyderabad.
- 3. Invited talk on "A 13-year-old boy with poor quality sleep and abnormal movements during sleep" in CME "Understanding Sleep Disorders A case-based approach" on April 14-15, 2023 at AIIMS Rishikesh.
- 4. Invited talk on "Lower Limb spasticity" in the "Neurorehabilitation workshop" in the 16<sup>th</sup> Annual Indian National Stroke Congress on March 30, 2023 at Chennai.
- 5. Conducted hands-on botulinum toxin injection workshop on "Spasticity" in the "Neurorehabilitation workshop" in the 16<sup>th</sup> Annual Indian National Stroke Congress on March 30, 2023 at Chennai.
- 6. Invited talk on "Gait disorders" in "Semiology and Phenomenology of Epilepsy and Movement Disorders" on March 26, 2023 at Nizam's Institute of Medical Sciences, Hyderabad.
- 7. Conducted hands-on botulinum toxin injection workshop on "Dystonia and Spasticity" on March 25, 2023 at Nizam's Institute of Medical Sciences, Hyderabad.
- 8. Invited talk on "Treatable Ataxias: Clinical Approach" in 7<sup>th</sup> Annual Conference of Movement Disorders Society of India held on March 16, 2023 at Kolkata.
- 9. Invited to Chair a session on "Sleep and Movement Disorders" in 8<sup>th</sup> Asian and Oceanian Parkinson's disease and Movement Disorders Congress held on March 17-19, 2023 at Kolkata.
- 10. Invited talk on "All in one: Wilson's disease" in Varanasi Movement Disorders Update on December 24<sup>th</sup>, 2022 at Institute of Medical Sciences, BHU, Varanasi, India.
- 11. Invited talk on "Imitators of Epilepsy" in CME on Epilepsy on National Epilepsy Day, November 17, 2022 at AIIMS Deoghar, India.
- 12. Invited as moderator for a session on "Neuromodulation in Neurological disorders" during International Neuromodulation Society Interim Meeting (INS-IM) on November 12<sup>th</sup>, 2022 in Mumbai, India.
- 13. Invited talk on "Clinical examination of a movement disorder patient" during MDS-AOS symposium on November 5<sup>th</sup>, 2022 during AOCN-IANCON 2022 (18<sup>th</sup> Asian-Oceanian Congress of Neurology and 29<sup>th</sup> Annual Conference of Indian Academy of Neurology) in New Delhi, India.
- 14. Conducted hands-on botulinum toxin injection workshop on "Oro-mandibular dystonia" in the session "Botulinum toxin in Movement Disorders" on November 2<sup>nd</sup>, 2022 during AOCN-

- IANCON 2022 (18<sup>th</sup> Asian-Oceanian Congress of Neurology and 29<sup>th</sup> Annual Conference of Indian Academy of Neurology) in New Delhi, India.
- 15. Invited to chair the session "Botulinum toxin in Movement Disorders" on November 2<sup>nd</sup>, 2022 during AOCN-IANCON 2022 (18<sup>th</sup> Asian-Oceanian Congress of Neurology and 29<sup>th</sup> Annual Conference of Indian Academy of Neurology) in New Delhi, India.
- 16. Invited talk on "Clinical examination in movement disorders: A video-based approach" at 4<sup>th</sup> Medicine Update on October 19<sup>th</sup>, 2022 by Department of General Medicine, Indira Gandhi Institute of Medical Sciences, Patna at IGIMS, Patna (delivered online).
- 17. Invited talk on "Wilson's disease" at 28<sup>th</sup> Annual Conference of UP-UK Neurosciences Society on October 7-9, 2022 at Banaras Hindu University, Varanasi.
- 18. Invited talk on "Evidence based treatment of Acute Stroke" in the Department of General Medicine and AIIMS Patna on October 3<sup>rd</sup>, 2022.
- 19. Invited talk on "How do I not miss treatable ataxias?" in Gujarat Movement Disorders Update 2022 on September 3-4, 2022 at Ahmedabad.
- 20. Invited as a faculty to conduct "hands-on workshop for botulinum toxin injection in patients with spasticity" at the World Neurosciences Summit-III at New Delhi from August 26-29, 2022
- 21. Invited talk on "Approach to a patient with sleep disorders" in the Department of Psychiatry at AIIMS Patna on April 22<sup>nd</sup>, 2022.
- 22. Invited talk on "Approach to a patient with Epilepsy" in the Department of Psychiatry at AIIMS Patna on April 21st, 2022.
- 23. Invited as a Parkinson's disease expert in the panel discussion organized by Indian Academy of Neurology on "Viswa Parkinson Diwas" on April 12, 2022.
- 24. Invited talk on "Sleep and movement disorders" during Parkinson's Research Alliance of India (PRAI) research day meet and PRAI-King's College London (KCL) collaboration meet on March 5-6, 2022 at Bangalore.
- 25. Invited talk on "SWOT analysis for research work in movement disorders" during Parkinson's Research Alliance of India (PRAI) research day meet and PRAI-King's College London (KCL) collaboration meet on March 5-6, 2022 at Bangalore.
- 26. Invited to chair a session on "Updates on thrombolytic therapy in ischemic stroke" during the CME on "Current Practices in Emergency Medicine" held at AIIMS Rishikesh from December 8-9, 2021.
- 27. Invited talk on "Movement Disorders Relevance for Psychiatrists" in the online CME series of Indian Psychiatry Society (North Zone) on November 24, 2021.

- 28. Invited talk on "What is new in medical therapy of Parkinson disease" in the "Hot Topics in Neurology" session in 28<sup>th</sup> Annual Conference of Indian Academy of Neurology at Bengaluru from November 11-14, 2021.
- 29. Invited to chair and moderate the session "Hot topics in Neurology" session in 28<sup>th</sup> Annual Conference of Indian Academy of Neurology at Bengaluru from November 11-14, 2021.
- 30. Invited talk on "Approach to Movement disorders" in the Department of Psychiatry and General Medicine at AIIMS Patna on November 9<sup>th</sup>, 2021.
- 31. Invited talk on "Psychiatry and Movement disorders: Exploring the interface" in the Department of Psychiatry at AIIMS Patna on November 8<sup>th</sup>, 2021.
- 32. Invited to conduct a "Case-based interactive session on Movement disorders & their psychiatric manifestations" in the Department of Psychiatry at AIIMS Patna on November 7<sup>th</sup>, 2021.
- 33. Invited talk on "Management of Advanced Parkinson's disease" in the 27<sup>th</sup> Annual conference of UP-UK Neuroscience society held on August 7-8, 2021 (meeting held online).
- 34. Invited talk on "Electrophysiology of tremor and other movement disorders" in a live webinar organized by AIIMS Gorakhpur on July 12, 2021.
- 35. Invited talk on "Management of Advanced Parkinson's disease" in the meeting hosted by UP-UK Neuroscience Society & Bundelkhand Neurology Foundation on April 11, 2021 (meeting held online).
- 36. Invited as a speaker in the "Ataxia Module" in the first Rare Movement Disorders Symposium, India on February 27-28, 2021 (meeting held online).
- 37. Invited talk on "Sleep-related Movement Disorders" in Post Graduate Development Program 2020, hosted by the Department of Psychiatry, AIIMS Rishikesh on October 17, 2020 (meeting held online).
- 38. Invited talk on "Approach to akinetic-rigid state" in the "National Neuro Update Rishikesh" at AIIMS Rishikesh from February 21 22, 2020.
- 39. Invited talk on "Unusual Movement Disorders: Presentation and Management" in 5<sup>th</sup> Annual Conference of Movement Disorders Society of India (MDSICON) 2020 at Trivandrum from January 31- February 2, 2020.
- 40. Invited as a panelist in the "Video Akhada: Presentation of interesting Movement Disorder cases" in 5<sup>th</sup> Annual Conference of Movement Disorders Society of India (MDSICON) 2020 at Trivandrum from January 31-February 2, 2020.
- 41. Invited to chair the session titled, "Videos of Challenging cases" in the "Deep Brain Stimulation in Movement Disorders course" in Hyderabad from November 8-10, 2019, organized on behalf of the International Parkinson and Movement Disorder Society's Asian and Oceanian Section (MDS-AOS).

- 42. Invited talk on "Hot Topics in Movement Disorders" in the 27<sup>th</sup> Annual Conference of Indian Academy of Neurology at Hyderabad from October 3-6, 2019.
- 43. Invited as a Chairperson in the session titled, "Movement Disorders: Movers and Shakers" in the World Neurosciences Summit-II at New Delhi from August 23-25, 2019.
- 44. Invited talk on "Approach to a patient with Chorea" in the "First National Movement Disorders Conclave-Uttarakhand" at AIIMS Rishikesh on July 13 & 14, 2019.
- 45. Invited talk on "Diabetic Neuropathy" in an "Advanced Certificate Course in Diabetes" (Organized by Division of Diabetes and Metabolism, Dept. of Medicine, AIIMS Rishikesh) in May 2019 at AIIMS Rishikesh, India.
- 46. Invited talk on "Nerve Conduction Studies" in an "Advanced Certificate Course in Diabetes" (Organized by Division of Diabetes and Metabolism, Dept. of Medicine, AIIMS Rishikesh) in May 2019 at AIIMS Rishikesh, India.
- 47. Invited to moderate a session on "Movement Disorders and epilepsy" in the 20<sup>th</sup> Joint Annual Conference of Indian Epilepsy Society and Indian Epilepsy Association ECON 2019 held from 8-10 March 2019 at New Delhi.
- 48. Invited talk on "Restless legs syndrome" at MDSICON-2019 (4th Annual Conference of Movement Disorders Society of India) in Feb. 2019 in New Delhi, India.
- 49. Invited as a Chairperson for a poster session at Movement Disorder Society of India annual conference, MDSICON 2019 (4<sup>th</sup> Annual Conference of Movement Disorders Society of India) in Feb. 2019 in New Delhi, India.
- 50. Conducted hands-on botulinum toxin injection workshop on focal dystonia in MDSICON-2019 (4<sup>th</sup> Annual Conference of Movement Disorders Society of India) in Feb. 2019 in New Delhi, India.
- 51. Invited talk on "Hemifacial spasm" in IANCON 2018 (26<sup>th</sup> Annual Conference of Indian Academy of Neurology) in Sept. 2018 in Raipur, India.
- 52. Conducted hands-on botulinum toxin injection workshop on focal dystonia in IANCON 2018 (26<sup>th</sup> Annual Conference of Indian Academy of Neurology) in Sept. 2018 in Raipur, India.
- 53. Invited talk on "Blepharospasm" in Neurotoxin Expert Summit (Organized by Asian Society of CME) in Sept. 2018 in New Delhi, India.
- 54. Conducted hands-on botulinum toxin injection workshop on focal dystonia in Neurotoxin Expert Summit (Organized by Asian Society of CME) in Sept. 2018 in New Delhi, India.
- 55. Invited talk on "Neurological emergencies" in a CME on Scope & Capacity Building in Trauma & Emergency Medicine (Organized by Dept. of Trauma & Emergency Medicine AIIMS Rishikesh) in April 2018 at AIIMS Rishikesh, India.

- 56. Invited talk on "Diabetic Neuropathy" in a CME on Diabetes (Organized by Division of Diabetes and Metabolism, Dept. of Medicine & Nursing) in April 2018 at AIIMS Rishikesh, India.
- 57. Invited talk on "Updates in Parkinson's disease" on Parkinson's day celebration on April 14, 2018. In the Dept. of Neurology at Institute of Medical Sciences, Banaras Hindu University, Varanasi, India.
- 58. Participated as a Faculty in the 4<sup>th</sup> I-NK Movement Disorders Update and Botulinum Toxin Workshop (Organized by Institute of Neurosciences Kolkata) held on 7<sup>th</sup> & 8<sup>th</sup> April, 2018 at Kolkata, India.
- 59. Conducted a live teaching session on patients with "Approach to Movement disorders" at MDSICON 2018 (3<sup>rd</sup> Annual Conference of Movement Disorders Society of India) in January 2018 at Hyderabad, India.
- 60. Invited talk on "Approach to a patient with Chorea" at ANEICON-2017 (Association of Neuroscientists of Eastern India) in Nov. 2017 at Cuttack, Odisha, India.

#### L. <u>Editor/ Reviewer in peer-reviewed journals</u>:

1. Member, Editorial board, Annals of Indian Academy of Neurology: January 2023- to date

#### 2. Reviewer for journals

- Canadian Medical Association Journal (Impact factor 14.6)
- Nature and science of sleep (Impact factor 3.38)
- Expert Review of Neurotherapeutics (Impact factor 4.28)
- Neurology India (Impact factor 1.66)
- Acta Neurologica Scandinavica (Impact factor 3.91)
- Neurological Sciences (Impact factor 3.3)
- Movement Disorders Clinical Practice (Impact factor 4.51)
- Annals of Indian Academy of Neurology (Impact factor 1.7)
- Journal of Neurosciences in Rural Practice (Impact factor 0.33)
- Arquivos De Neuro-Psiquiatria (Impact factor 2.03)
- Annals of Movement Disorders
- Sleep and Vigilance

#### M. Chairman/ Expert in scientific bodies:

1. 2022: Reviewer for the dissertations submitted for the "best thesis award" by Movement disorders society of India.

- 2. 2022: Reviewer for selecting the best abstracts to be presented as platform/ poster during the Annual MDSICON held at Mumbai from May 12-15, 2022
- 3. 2021: Member, State Adverse Event Following Immunization (AEFI) committee, Uttarakhand for COVID vaccination.
- 4. 2021: Member, Adverse Event Following Immunization (AEFI) committee, AIIMS Rishikesh for COVID vaccination.

#### N. Chairman/ Expert in selection committees or External Examinership in Neurology:

- 1. External examiner for DM Neurology/ PhD Neurosciences (Thesis/ Theory/ Practical) for following Universities:
  - AIIMS New Delhi
  - PGI Chandigarh
  - AIIMS Rishikesh
  - KGMU Lucknow
  - RUHS Jaipur
  - AIIMS Jodhpur
  - JIPMER Puducherry
  - University of Calcutta
- 2. Invited as a Neurology expert for conducting interview for the post of Lecturer Neurology in Jammu & Kashmir Health and Medical education department on December 24, 2020

#### O. Invited talks/ sessions on Television (Doordarshan):

- 1. Invited for a live discussion and question and answer session on "Parkinson's disease: Causes and treatment" at Dehradun Doordarshan (Prasar Bharti) in the "Hello Doctor" program on April 11, 2022.
- 2. Invited for a discussion on "Brain Stroke: Causes and treatment" at Dehradun Doordarshan (Prasar Bharti) on March 22, 2021.

#### P. Administrative position and responsibilities:

- 1. March 2023- to date: Head of the department, Neurology, AIIMS Bibinagar, Hyderabad.
- April 2023 to date: Chairperson, Medical Education Research Committee, AIIMS Bibinagar, Hyderabad.

- 3. January 2018- March 2023: Head of the department, Neurology, AIIMS Rishikesh.
- September 2022 to date: Member, Committee for International Collaboration in AIIMS Rishikesh.
- 5. July 2020- September 2021: Vice-Dean (Allied Health Sciences), AIIMS Rishikesh.

#### Q. Organizational experience:

- 1. Organizing secretary, "National Neuro Update Rishikesh" at AIIMS Rishikesh in February 2020.
- 2. Organizing secretary, "First National Movement Disorders Conclave-Uttarakhand" at AIIMS Rishikesh in July 2019.
- 3. Organizing Chairperson, "First Neurology Update" at AIIMS Rishikesh in December 2018.
- 4. Organizing Secretary, Movement Disorder Symposium at Patna, Bihar, India in November 2014.
- 5. Part of organizing team for "The Movement Disorder Society Asian and Oceanian Section An Educational Course (including workshop on botulinum toxin injection)" in March 2008 at Institute of Medical Sciences, BHU, Varanasi, India.

#### R. Membership of Professional bodies:

- 1. Indian Academy of Neurology: Life Member
- 2. International Parkinson and Movement Disorder Society
- 3. Movement disorder society of India: Regular member
- 4. Parkinson Research Alliance of India
- 5. American Academy of Neurology: Associate Member
- 6. The Neuromodulation Society of India

#### S. <u>Position in professional committees:</u>

- 1. 2021-24: Member Executive Committee, Movement Disorders Society of India
- 2. 2021-22: Chief coordinator, National Journal Quest by Movement Disorders Society of India
- 3. 2011-15: Secretary, Patna Neurological Society

# T. <u>Selected research projects as a Primary investigator/Co-investigator at national/institute level in past 5 years:</u>

Sl.	Title of project	Year of	Funding Agency
No.		sanction	
A	Funded projects		
1	Genetic Architecture of Parkinson's disease in India (in collaboration with Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum, India)	2019	Michel J Fox foundation, USA
2	Genetics of Pan-India Yong-onset Parkinson's disease (in collaboration with Parkinson research alliance of India)	2019	PRAI-MedGenome collaboration, India
3	To study the role of Optical Coherence Tomography in relation to 99mTc-TRODAT scan as a potential biomarker in Idiopathic Parkinson's disease and Parkinson plus syndromes	2019	AIIMS Rishikesh
4	IMPETUStroke: IMPlementation of an Evaluation and Treatment Package for Uniform Stroke Care and outcomes in the Medical Colleges in India. An Implementation Research Study (in collaboration with AIIMS New Delhi)	2020	Department of Health Research, Government of India
5	Indian Multiple Sclerosis and Allied Demyelinating Disorders Registry and Research Network (in collaboration with AIIMS New Delhi)	2020	ICMR, Government of India
6	HTA of National Stroke Care Registry Programme Development of Hospital Based Stroke Registries in Different Regions of India (in collaboration with AIIMS New Delhi)	2020	ICMR, Government of India
7	Development of Indigenous system for Deciphering Envisioned Speech from EEG Signals using optimized Deep Convolutional Neural Network Models (DECONET)	2021	Science and Engineering Research Board
8	Development of Techniques for Voice Rehabilitation and Improvement in Speech Intelligibility in patients with Parkinson's disease.	2021	-
9	Pan India Registry for Progressive Supranuclear Palsy (PAIR-PSP)	2021	PRAI-MedGenome collaboration, India
10	Temporal association of Sleep Apnea and Insomnia in COVID19 survivors: A prospective multicentre study	2022	ICMR, Government of India
11	Sentinel Surveillance for Adverse Events of Special Interest (AESI) following COVID-19 vaccination in India	2022	Ministry Of Health and Family Welfare, India
12	Fever, hyperglycemia, swallowing and hypertension management in acute stroke: A cluster randomized controlled trial (Indian Quality Improvement in Stroke Care Study)	2022	ICMR
В	Non-funded projects		

13	Clinical, Radiological and Biochemical profile in patients suffering with	2019	-
	Central Nervous System Demyelinating Disorders: A prospective cohort		
	study		
14	Clinical, Radiological and Biochemical Profile in Patients with	2019	-
	Movement Disorders: An Ambispective study from a Tertiary Care		
	Centre in the Sub-Himalayan region of India.		
15	Comparison of tolerability and efficacy of ethambutol vs streptomycin in	2019	-
	patients with tubercular meningitis		
16	Clinical, electrophysiological spectrum and predictors of dysautonomia	2019	-
	and successful extubation in Guillian Barre syndrome: a prospective		
	cohort study		
17	Clinical, radiological and biochemical profile in patients with headache	2019	-
	disorders: an ambispective study from a tertiary care centre in the		
	Himalayan region of India		
18	Clinical characteristics of patients developing hemolysis after receiving	2020	-
	intravenous immunoglobulin infusion in various neurological disorders		
19	Clinical, biochemical, immunological, electrophysiological and	2020	-
	radiological profile and treatment outcome of autoimmune encephalitis		
20	Clinical, biochemical, electrophysiological and radiological profile and	2020	-
	treatment outcome of rapidly progressive dementia		
21	Impact of COVID-19 on motor and non-motor features (focus on sleep	2020	-
	parameters) in patients with Parkinson's disease – a multi-centre study		
22	Impact of COVID-19 Pandemic on neurological emergencies: A study	2020	-
	from a tertiary care centre in the Sub-Himalayan region of India		
23	Effect of home confinement on sleep pattern, mood, anxiety and stress	2020	-
24	Clinical profile, predisposing factors, neuroimaging findings and outcome	2020	-
	of cerebral venous sinus thrombosis: An Ambispective study from a		
	tertiary care centre in the Himalayan region of India		
25	Assessment of sleep quality and sleep disorders among patients with	2021	-
	movement disorders – a multi-centre study		
26	Assessment of impact of COVID 19 illness on various sleep parameters	2021	-
	in general population – a multi-centre study		
27	To compare the Efficacy and Safety of Thrombolysis using Alteplase	2021	-
	versus Tenecteplase in Acute Ischemic Stroke Patients		
28	Clinical and Electrophysiological Profile, seasonal variation and	2021	-
	treatment outcome in Guillain Barre Syndrome		
29	Disability following COVID-19 - a multicentric study	2021	-

### U. As a Primary Guide/ Co-guide for Dissertations:

I have been a Primary guide of 5 DM Neurology trainees and Primary guide/co-guide of 13 MD candidates to date.

Sl.	Dissertation Topic	Course
No.		
1	Comparison of Amantadine with Ropinirole in restless legs syndrome: a single blind	DM (Neurology)
	randomized controlled exploratory trial	

2	Correlation of optical coherence tomography and 99mTc TRODAT scan parameters with different stages and subtypes of Idiopathic Parkinson's disease and Parkinson-plus Syndromes	DM (Neurology)
3	Clinicoradiological profile of neuromyelitis optica spectrum disorder and myelin oligodendrocyte glycoprotein antibody disease from a tertiary care center in North India–A prospective cohort study	DM (Neurology)
4	Sleep Fragmentation in Idiopathic Parkinson Disease: A Polysomnography Based Study	DM (Neurology)
5	Study of characteristics of primary headache disorders in Parkinson's plus syndrome and comparison with Parkinson's disease: An observational Study	DM (Neurology)
6	Trans-echocardiographic evaluation of risk factors for cryptogenic ischemic stroke	DM (Cardiology)
7	Default mode network connectivity in Parkinson disease using functional magnetic resonance imaging	MD (Radiology)
8	Role of Yoga in Migraine	MD (General Medicine)
9	A Study of cerebral metabolic parameters in patients of migraine with and without MDD	MD (psychiatry)
10	Association of basilar artery displacement with migraine on magnetic resonance imaging at a tertiary care centre in Northern India: A case-control study	MD (Radiology)
11	Role of magnetization transfer ratio in differentiating patients of tuberculoma from neurocysticercosis: A diagnostic validation study	MD (Radiology)
12	Peripheral neuropathy in Parkinson's disease and Parkinson-plus syndromes	MD (General Medicine)
13	Comparison of post contrast spin echo T1 weighted imaging and post contrast susceptibility weighted imaging for conspicuity of parenchymal brain lesions	MD (Radiology)
14	Comparative Assessment of Antiparkinsonian Drugs Therapy in Terms of Treatment Responses, Tolerability, and Cost-Effectiveness: A Prospective Observational Study	MD (Pharmacology)
15	Impact of MTHFR, MS, CBS gene polymorphism and vitamin B6, B9 and B12 supplementation on hyper-homocysteinemia among ischemic stroke patients	Phd (Nursing)
16	Development and validation of modified Restless legs Syndrome Diagnostic Questionnaire	MD (Psychiatry)
17	Evaluation of 99mTc-TRODAT-1 imaging in diagnosis of Idiopathic Parkinson's Disease versus Parkinson plus syndromes- A scintigraphy based study	MD (Nuclear Medicine)
18	Use of Transorbital Ultrasonographic Measurement of Optic Nerve Sheath diameter as a predictor of prognosis in ischemic stroke patients	MD (Emergency Medicine)