## 3. Principal Investigator(s) CVs

Note: The details and CV of all Investigators must be provided in the format given below:

#### **Prescribed format:**

#### Q1.

Role (Choose appropriately)	co-Principal Investigator
Full Name (Title, Forename,	Dr. Nishant Goyal
Surname):	
Date of Birth (DD/MM/YYYY):	04/03/1975
Nationality:	Indian
Gender:	Male
Direct contact number:	9431171162
(The office may contact you on this	
number).	
Email ID:	psynishant@gmail.com; nishantgoyal.cip@gov.in
Expertise:	Child and Adolescent Psychiatry, Neuromodulation (Non-invasive Brain
	Stimulation), Cognitive Neurosciences, Digital Psychiatry
ORCID ID (optional):	https://orcid.org/0000-0002-9527-8261

## Q2. Current position

Central Institute of Psychiatry, Ranchi-834006, Jharkhand, India		
Central Health Services, Ministry of Health and Family Welfare,		
Government of India		
director@cipranchi.nic.in		
Associate Professor of Psychiatry		
(b) With whom do you have your contract of employment?		

Central Health Services, Ministry of Health and Family Welfare, Government of India

# (c) Source of personal salary support

Kindly answer this question only if you are seeking salary support from this grant application. Also be specific if your current salary is funded from more than one source. Indicate with an asterisk (\*) those sources of salary support that have contributed to the background of this proposal.

(d) Other affiliations in any other organization None

## **Q3. Highest Degree** (PhD/MD/MBBS-MS/MD-PhD/MPH/equivalent)

MD Psychiatry

# **Q4.** For how many years have you been running an independent research group or lab? Please exclude your non-research career break, if any.

## 11 Years and 06 months

#### **Q5. Previous posts held** (list the most recent first):

Date from	Date to	Position	Department	Organisation
(mm/yyyy)	(mm/yyyy)			
12/2014	04/2017	Assistant Professor of	Centre for Child and	Central Institute of



		Psychiatry	Adolescent Psychiatry, Centre for Cognitive Neurosciences, Community Psychiatry, General Adult Psychiatry	Psychiatry, Ranchi, Jharkhand
11/ 2011	03/2013	Assistant Professor of Psychiatry	Centre for Child and Adolescent Psychiatry, Centre for Cognitive Neurosciences, Community Psychiatry, General Adult Psychiatry	Central Institute of Psychiatry, Ranchi, Jharkhand
01/ 2007	01/2010	Senior Resident in Psychiatry	Centre for Child and Adolescent Psychiatry, Centre for Cognitive Neurosciences, Community Psychiatry	Central Institute of Psychiatry, Ranchi, Jharkhand

**Q6. Education/training** (list the most recent first):

Date from	Date to	Qualification	Subject	Organisation
(mm/yyyy)	(mm/yyyy)			
01/2005	01/2007	Doctor in Medici	ne Psychiatry	Central Institute of
		(MD)		Psychiatry, Ranchi,
				Jharkhand
09/2002	08/2004	Diploma in	Psychiatry	Central Institute of
		Psychological		Psychiatry, Ranchi,
		Medicine (DPM)		Jharkhand

#### Q7. Summary of scientific career to date, including key achievements (Limit 350 words)

I am heading the Centre for Cognitive Neurosciences and Neuropsychiatry Services including weekly epilepsy clinic at Central Institute of Psychiatry and have developed first non-invasive Brain Stimulation Lab in the entire eastern region of the Country with state of art facilities including Robotised, 3-D Neuronavigated TMS/rTMS, HD-tDCS, tDCS, tACS, tES and hybrid stimulation facilities at Central Institute of Psychiatry (CIP). We also conduct neuroscience research using high resolution EEG and ERP systems complemented with video EEG, fNIRS and PSG facilities. The lab is involved in clinical and experimental research in the field of mental health and neurosciences.

I have published more than 70 papers in reputed international and national journals (Scopus indexed). I have published mainly in the areas of Brain Stimulation, high resolution EEG including cortical source localization and EEG connectivity and clinical child and adolescent psychiatry. I have authored/co-authored 06 book chapters particularly in the areas of Child and Adolescent Psychiatry and Mental Health Services development and history.

I have mentored/guided more than 55 post graduate researches mostly in the field of Brain Stimulation and Cognitive Neurosciences. Currently I am guiding 10 post graduate thesis/dissertations in mental health and neurosciences including PhD candidates particularly in the field of Child and Adolescent Psychiatry. Apart from this I am In charge and nodal officer in key areas of the functioning of the Institute including looking after Academics, Post Graduate Examinations, Ethics Committee, DRC, Mental Health Care Act Implementation Committee and also involved in policy development and key persons in developing projects including redevelopment of the Institute, development of fMRI Centre and Emergency Psychiatry services. I am heading the clinical services in Department of Child and Adolescent Psychiatry and looking after



Community Outreach Services in remote areas and Army Cantonment in Ranchi.

I am designated as an External Expert and Advisory by National Commission for Protection of Child Rights (NCPCR), New Delhi under Ministry of Women and Child Development and I am involved in policy and programme making and implementation and conducting workshops in the Eastern region on various subject matters under the purview of NCPCR.

## **Q8.** Experience relevant to this proposal (Limit 350 words)

I am trained by the experts in the field of Robotised, 3-D Neuronavigated Transcranial Magnetic Stimulation (TMS)/repetitive (rTMS), High Definition-Transcranial Direct Current Stimulation (HD-tDCS), tDCS, Transcranial Alternating Current Stimulation (tACS), Transcranial Electric Stimulation (tES), Ultra Brief Pulse Electroconvulsive Therapy (UBP-ECT) and hybrid stimulation facilities. I have done my MD thesis titled "Efficacy and Cerebral Hemodynamics of rTMS in Schizophrenia: A randomized placebo-controlled study" using Cranial Doppler and rTMS to study the effects of rTMS in Schizophrenia.

Since 2010, I have been involved as supervisor and have guided 29 post graduate thesis/dissertation involving techniques of TMS, rTMS, High resolution EEG, Event related Potentials (ERP), HD-tDCS, tDCS and neurochemical aspects of various psychiatric disorders. Apart from that I have learned to conduct standardized Low resolution Electromagnetic tomography (sLORETA®) and Brain Connectivity Analysis (MUSIC), designing visual/auditory/galvanic/mixed paradigm using software Matlab and EPRIME® for event related potentials/evoked oscillations/event related desynchronization tasks. Our well-equipped lab is involved in clinical and experimental research in the field of mental health and neurosciences.

I have been trained in Functional Magnetic Resonance Imaging (fMRI), MR Compatible rTMS/TMS, 128-channel EEG, Eye tracking system, Magnetic Resonance Spectroscopy (MRS), Diffusion Tensor Imaging (DTI), 3-D Volumetric and Anisometric MRI Signal studies and have been trained over 3-Tesla fMRI system including development of research protocols, signal acquisition and processing at the fMRI Centre under my supervision at CIP. Currently 07 projects are being carried out looking into various aspects and using set of facilities available at the fMRI Centre at CIP.

I have published 40 papers as co-author in the last 05 years mainly in the areas of Brain Stimulation, high resolution EEG including cortical source localization and EEG connectivity. I have mentored/guided more than 24 post graduate researches in the field of Brain Stimulation and Cognitive Neurosciences. Currently I am guiding 07 post graduate thesis/dissertations in the said field. Apart from this I am working as Co-PI in a National Institute of Health (NIH), USA funded project titled "Acute Consequences of Cannabis Exposure" since 2017 along with Yale University and NIMHANS, Bengaluru which involves characterization of Subjects using 256-channel high resolution EEG technique.

## Q9. Research output in last 5 years

Please list

- Peer-reviewed publications. List should include peer reviewed research articles, systematic reviews and meta-analyses, but exclude abstracts and literature reviews. Please provide PubMed Central ID (PMCID) reference for each.
- **Preprints**. List should include manuscripts that have been submitted to a preprint repository or service. Please provide full citation, including title of paper, all authors, along with repository's name and the article identifier. It is mandatory to mention a permanent identifier such as DOI.
- **Inventions and patents**. Please provide title, authors, granting agency, patent number, year and status of the application.

Guidelines:



- The author details including the author order and corresponding author information must be accurate and as per the published article. Improper representation of credit or authorship would be considered as a serious misconduct by India Alliance and may lead to rejection of the application.
- Publications should have names of all authors. "et al" should not be used unless there are more than 06 authors. "et al" should not be used unless there are more than 06 authors. Please use Vancouver referencing style.
- All entries should be in chronological order, with most recent first. Use sub-headings to segregate the list (such as research articles, preprints, patents, etc.)
- Use asterisks (\*) to highlight if you are a corresponding author (along with other co-corresponding authors) and underline if you are a joint-first author.
- Please provide number of citations at present in bracket at the end of each entry.
- Please do not list the journal Impact Factor.

## Research output in last 5 years (2014-2015 onwards):

- 1. Roy C, Goyal N, Shreekantiah U, Ram D. Does single session transcranial magnetic stimulation alter fractional anisotropy in obsessive-compulsive disorder? A preliminary observation. Psychiatry Res. 2021 Apr 26;301:113970. doi: 10.1016/j.psychres.2021.113970. Epub ahead of print. PMID: 33984823.
- 2. Dharani R, Goyal N, Mukherjee A, Umesh S. Adjuvant High-Definition Transcranial Direct Current Stimulation for Negative Symptoms in Schizophrenia: A Pilot Study. J ECT. 2021 Mar 4. doi: 10.1097/YCT.000000000000756. Epub ahead of print. PMID: 33661184.
- 3. Khanra S, Mukherjee A, Goyal N, Das B, Munda SK. Service utilization and saved travel cost in telepsychiatry consultation by outpatients at a psychiatric hospital in India during COVID-19 pandemic. Asian J Psychiatr. 2021 Mar;57:102568. doi: 10.1016/j.ajp.2021.102568. Epub 2021 Jan 28. PMID: 33535135; PMCID: PMC7840431.
- 4. Verma DK, Khanra S, Goyal N, Das B, Khess CRJ, Munda SK, Ram D. Absconding During Inpatient Care from a Tertiary Psychiatric Hospital: A Comparative Study. Indian J Psychol Med. 2020 Jul 20;42(5):456-463. doi: 10.1177/0253717620929182. PMID: 33414593; PMCID: PMC7750842.
- 5. Pattojoshi A, Sidana A, Garg S, Mishra SN, Singh LK, Goyal N, Tikka SK. Staying home is NOT 'staying safe': A rapid 8-day online survey on spousal violence against women during the COVID-19 lockdown in India. Psychiatry Clin Neurosci. 2021 Feb;75(2):64-66. doi: 10.1111/pcn.13176. Epub 2020 Dec 1. PMID: 33225558; PMCID: PMC7753590.
- Sharma E, Tripathi A, Grover S, Avasthi A, Dan A, Sharma M, Goyal N, Manohari SM, Reddy YCJ. Association of insight, avoidance behavior, indecisiveness, and inflated responsibility with other clinical characteristics in children and adolescents with obsessive-compulsive disorder. Braz J Psychiatry. 2021 Mar-Apr;43(2):160-167. doi: 10.1590/1516-4446-2020-0952. PMID: 32997073; PMCID: PMC8023167.
- 7. Abhishek P, Nizamie SH, Jahan M, Kumar D, Goyal N, Pachori H, Katshu MZUH. Impaired recollection-based episodic memory as a cognitive endophenotype in schizophrenia. J Clin Exp Neuropsychol. 2020 Oct;42(8):759-770. doi: 10.1080/13803395.2020.1801598. Epub 2020 Sep 9. PMID: 32907466.
- 8. Mishra P, Nizamie SH, Jahan M, Garg S, Tikka SK, Goyal N, Mishra J. Predictors of chronicity in alcohol use disorder: an evoked response potential study. J Addict Dis. 2020 Oct-Dec;38(4):411-419. doi: 10.1080/10550887.2020.1780185. Epub 2020 Jun 30. PMID: 32602787.
- 9. Sinha SK, Das B, Munda SK, Umesh S, Goyal N. Cortical source localization during facial emotion recognition in bipolar mania: An ERP study. Asian J Psychiatr. 2020 Aug;52:102170. doi: 10.1016/j.ajp.2020.102170. Epub 2020 May 16. PMID: 32464518.
- 10. Mahato S, Goyal N, Ram D, Paul S. Detection of Depression and Scaling of Severity Using Six Channel EEG Data. J Med Syst. 2020 May 21;44(7):118. doi: 10.1007/s10916-020-01573-y. PMID: 32435986.
- 11. Gautham MS, Gururaj G, Varghese M, Benegal V, Rao GN, Kokane A, Chavan BS, Dalal PK, Ram D, Pathak K, Lenin Singh RK, Singh LK, Sharma P, Saha PK, Ramasubramanian C, Mehta RY, Shibukumar TM; **NMHS Collaborators Group**. The National Mental Health Survey of India (2016): Prevalence, socio-demographic correlates and treatment gap of mental morbidity. Int J Soc Psychiatry. 2020 Mar



- 4:20764020907941. doi: 10.1177/0020764020907941. PMID: 32126902 (0)
- 12. Arvind BA, Gururaj G, Loganathan Ss, Amudhan S, Varghese M, Benegal V, Rao GN, Kokane AM, B S C, P K D, Ram D, Pathak K, R K LS, Singh LK, Sharma P, Saha PK, C R, Mehta RY, T M S; **NMHS collaborators group**. Prevalence and socioeconomic impact of depressive disorders in India: multisite population-based cross-sectional study. BMJ Open. 2019 Jun 27;9(6):e027250. doi: 10.1136/bmjopen-2018-027250. PMID: 31253618 (0)
- 13. Arvind BA, Gururaj G, Rao GN, Pradeep BS, Mathew V, Benegal V, Gautham MS, Senthil A, Kokane A, Chavan BS, Dalal PK, Ram D, Pathak K, Lenin SRK, Singh LK, Sharma P, Saha PK, Ramasubramaniam C, Mehta RY, Shibukumar TM; the **NMHS collaborators group**. Framework and approach for measuring performance and progress of mental health systems and services in India: National Mental Health Survey 2015–2016. Int J Ment Health Syst. 2020 Mar 13;14:20. doi: 10.1186/s13033-020-00349-8. PMCID: PMC7071589. (0)
- 14. Mandal S, Sinha VK, **Goyal N**. Efficacy of ketamine therapy in the treatment of depression. Indian J Psychiatry. 2019 Sep-Oct;61(5):480-485. doi: 10.4103/psychiatry.IndianJPsychiatry\_484\_18. PMID: 31579184 (0)
- 15. Sharma E, Tripathi A, Grover S, Avasthi A, Dan A, Srivastava C, **Goyal N**, Manohari SM, Reddy J. Clinical profile of obsessive-compulsive disorder in children and adolescents: A multicentric study from India. Indian J Psychiatry. 2019 Nov-Dec; 61(6):564-571. doi: 10.4103/psychiatry. IndianJPsychiatry\_128\_19. (0)
- 16. Duffy RM, Gulati G, Paralikar V, Kasar N, Goyal N, Desousa A, Kelly BD. A Focus Group Study of Indian Psychiatrists' Views on Electroconvulsive Therapy under India's Mental Healthcare Act 2017: 'The Ground Reality is Different'. Indian J Psychol Med. 2019 Nov 11;41(6):507-515. doi: 10.4103/IJPSYM\_1JPSYM\_247\_19. eCollection 2019 Nov-Dec. (0)
- 17. Mandal S, Sinha VK, Goyal N. Efficacy of ketamine therapy in the treatment of depression. Indian J Psychiatry. 2019 Sep-Oct;61(5):480-485. doi: 10.4103/psychiatry.IndianJPsychiatry 484 18. (2)
- 18. <u>Sahu AK</u>\*, Sinha VK, **Goyal N.** Effect of adjunctive intermittent theta-burst repetitive transcranial magnetic stimulation as a prophylactic treatment in migraine patients: A double-blind sham-controlled study. *Indian Journal of Psychiatry*. 2019 Mar-Apr;61(2):139-145. (0)
- 19. <u>Duffy RM</u>\*, Narayan CL, **Goyal N**, Kelly BD. New legislation, new frontiers: Indian psychiatrists' perspective of the mental healthcare act 2017 prior to implementation. *Indian Journal of Psychiatry*. 2018 Jul-Sep;60(3):351-354. (5)
- 20. <u>Purushotham A</u>, Sinha VK, **Goyal N**, Tikka SK\*. Intermittent theta burst stimulation induced seizure in a child with schizophrenia: A case report. *Brain Stimulation*. 2018 Nov Dec;11(6):1415-1416. (0)
- 21. <u>Karkal R\*, **Goyal N**</u>, Tikka SK, Khanande RV, Kakunje A, Khess CRJ. Sensory Gating Deficits and their Clinical Correlates in Drug-Free/Drug-Naive Patients with Schizophrenia. *Indian Journal of Psychological Medicine*. 2018 May-Jun;40(3):247-256. (0)
- 22. <u>Abhishek P</u>\*, Nizamie SH, Dubey I, **Goyal N**, Tikka SK, Pachori H, Kumar D, Katshu MZUH. Lower P300 amplitudes for internally-generated events in patients with schizophrenia. *Asian Journal of Psychiatry*. 2018 Jun;35:67-71. (0)
- 23. Sinha V, Goyal N\*, Sinha J. History of Child and Adolescent Psychiatry at Central Institute of Psychiatry: Journey of Erna Hoch Centre for Child and Adolescent Psychiatry. Indian Journal of Psychiatry. 2018 Feb;60(Suppl 2):S264-S269. (0)
- 24. <u>Mishra A\*</u>, Das B, **Goyal N**. Religiosity and religious delusions in schizophrenia An observational study in a Hindu population. *Asian Journal of Psychiatry*. 2018. Feb;32:35-39. (2)
- 25. <u>Mitra S\*</u>, Nizamie SH, **Goyal N**. Putative mirror neuron activity in patients with schizophrenia remains unchanged after 8 weeks of antipsychotic treatment. *Asian Journal of Psychiatry*. 2018 Dec;38:70-71. (0)
- 26. <u>Mitra S\*</u>, Nizamie SH, **Goyal N**. Mirror neuron activity in schizophrenia may remain unaffected by duration of untreated psychosis. *Asian Journal of Psychiatry*. 2017 Jun;27:16-17. (0)
- 27. <u>Mitra S\*</u>, Nizamie SH, **Goyal N**, Tikka SK. Electroencephalogram alpha-to-theta ratio over left fronto-temporal region correlates with negative symptoms in schizophrenia. *Asian Journal of Psychiatry*.



- 2017 Apr;26:70-76. (1)
- 28. <u>Umesh S\*</u>, Tikka SK, **Goyal N**, Sinha VK, Nizamie SH. Aberrant gamma band cortical sources and functional connectivity in adolescents with psychogenic non-epileptic seizures: A preliminary report. *Psychiatry Research*. 2017 Jan;247:51-54. (4)
- 29. <u>Singh NK\*</u>, **Goyal N**. Perceived social support and burden of care of male and female caregivers of patient with schizophrenia. *Indian Journal of Psychiatric Social Work*. 2017; 10-13 (0)
- 30. <u>Tikka SK</u>\*, Nizamie SH, Venkatesh Babu GM, Aggarwal N, Das AK, **Goyal N**. Safety and Efficacy of Adjunctive Θ Burst Repetitive Transcranial Magnetic Stimulation to Right Inferior Parietal Lobule in Schizophrenia Patients With First-Rank Symptoms: A Pilot, Exploratory Study. *Journal of ECT*. 2017 Mar;33(1):43-51. (4)
- 31. <u>Tikka SK</u>\*, Shreekantiah U, Krishnan A, **Goyal N**, Nizamie SH, Ram D. Sources of mu activity and their functional connectivity in perceiving complexities in reciprocal social interactive motion: An exploratory study using the 'Namaste' task. *Asian Journal of Psychiatry*. 2016 Aug;22:6-14. (0)
- 32. <u>Shreekantiah Umesh D</u>\*, Tikka SK, **Goyal N**, Nizamie SH, Sinha VK. Resting state theta band source distribution and functional connectivity in remitted schizophrenia. *Neuroscience Letters*. 2016 Sep 6;630:199-202. (7)
- 33. <u>Garg S</u>\*, Sinha VK, Tikka SK, Mishra P, **Goyal N**. The efficacy of cerebellar vermal deep high frequency (theta range) repetitive transcranial magnetic stimulation (rTMS) in schizophrenia: A randomized rater blind-sham controlled study. *Psychiatry Research*. 2016 Jul 16;243:413-420. (6)
- 34. <u>Mitra S\*</u>, Nizamie SH, **Goyal N**, Tikka SK, Kavoor AR. Comparing mirror neuron system activity between sporadic and familial cases of schizophrenia. *Asian Journal of Psychiatry*. 2016 Jun;21:17-8. (0)
- 35. <u>Umesh S</u>\*, Nizamie SH, **Goyal N**, Tikka S, Bose S. Social anhedonia and gamma band abnormalities as a composite/multivariate endophenotype for schizophrenia: a dense array EEG study. *Early Interventions in Psychiatry*. 2018 Jun;12(3):362-371. (1)
- 36. <u>Tikka SK</u>\*, Nizamie SH, Das AK, Agarwal N, **Goyal N**. Schneiderian first rank symptoms in schizophrenia: A developmental neuroscience evaluation. *International Journal of Developmental Neuroscience*. 2016 May;50:39-46. (0)
- 37. <u>Tikka SK</u>\*, Nizamie SH, **Goyal N**, Pradhan N. Evaluation of spontaneous dense array gamma oscillatory activity and minor physical anomalies as a composite endophenotype in schizophrenia. *International Journal of Developmental Neuroscience*. 2015 Dec;47(Pt A):24. (6)
- 38. Motichand S.\*, Sinha J., Rai S., Sinha VK., **Goyal N**. Obsessional Fear of Getting Into a Relationship: A Case Report. *Adolescent Psychiatry*, 2015, 5(4). (0)
- 39. <u>Kavoor AR</u>\*, Mitra S, Mehta VS, **Goyal N**, Sinha VK. Tourette syndrome and bipolar disorder: unique problems with pediatric comorbidity. *Indian Journal of Psychological Medicine*. 2015 Apr-Jun;37(2):223-5. (0)
- 40. <u>Tikka SK</u>\*, Garg S, Sinha VK, Nizamie SH, **Goyal N**. Resting State Dense Array Gamma Oscillatory Activity as a Response Marker for Cerebellar-Repetitive Transcranial Magnetic Stimulation (rTMS) in Schizophrenia. *Journal of ECT*. 2015 Dec;31(4):258-62. (4)
- 41. <u>Goyal N</u>\*, K L Vidya, Sinha VK. Priming rTMS for Treatment Resistant Auditory Hallucinations in Schizophrenia. *Journal of Neuropsychiatry and Clinical Neurosciences*. 2015;27(2):e177-8. (0)
- 42. <u>Kumar SR</u>, Sinha VK, Tikka SK\*, **Goyal N**. Gamma activity model for treatment-resistant bipolar psychotic mania. *Indian Journal of Pharmacology*. 2015 Mar-Apr;47(2):215-8. (0)
- 43. <u>Mitra S\*</u>, Nizamie SH, **Goyal N**, Tikka SK. Evaluation of resting state gamma power as a response marker in schizophrenia. *Psychiatry Clinical Neurosciences*. 2015 Oct;69(10):630-9. (19)
- 44. <u>Mitra S\*</u>, Haque Nizamie S, **Goyal N**, Tikka SK. Event related desynchronisation of mu-wave over right sensorimotor cortex at baseline may predict subsequent response to antipsychotics in Schizophrenia. *Asian Journal of Psychiatry*. 2015 Apr;14:19-21. (3)
- 45. <u>Bhattacharya A</u>, <u>Goyal N\*</u>, Sinha VK. Childhood dissociation as a precursor of mood disorder: A 5 years follow-up case study. *Indian Journal of Psychiatry*. 2015 Jan-Mar;57(1):108-10. (0)
- 46. Tikka SK\*, Nizamie SH, Goyal N, Pradhan N, Tikka DL, Katshu MZ. Evaluation of spontaneous dense



- array gamma oscillatory activity and minor physical anomalies as a composite neurodevelopmental endophenotype in schizophrenia. *International Journal of Developmental Neuroscience*. 2015 Feb;40:43-51. (6)
- 47. <u>Tikka SK</u>\*, Parvez N, Nongpiur A, **Goyal N**, Sinha VK. Spontaneous dense array gamma activity in children and adolescents with volatile solvent dependence. *Journal of Paediatric Neuroscience*. 2014 Sep-Dec;9(3):234-6. (0)
- 48. <u>Tikka SK</u>\*, Yadav S, Nizamie SH, Das B, Tikka DL, **Goyal N**. Schneiderian first rank symptoms and gamma oscillatory activity in neuroleptic naïve first episode schizophrenia: a 192 channel EEG study. *Psychiatry Investigations*. 2014 Oct;11(4):467-75. (8)
- 49. <u>Tikka SK</u>\*, Yadav S, Nizamie SH, Das B, **Goyal N**, Tikka DL. Sporadic and familial subgroups of schizophrenia do not differ on dense array spontaneous gamma oscillatory activity. *Psychiatry Research*. 2014 Dec 30;220(3):1151-4. (4)
- 50. <u>Mitra S</u>\*, Nizamie SH, **Goyal N**, Tikka SK. Mu-wave Activity in Schizophrenia: Evidence of a Dysfunctional Mirror Neuron System from an Indian Study. *Indian Journal of Psychological Medicine*. 2014 Jul;36(3):276-81. (8)
- 51. <u>Mitra S</u>\*, Nizamie SH, **Goyal N**, Tikka SK. Unchanging mirror neuron activity in schizophrenia patients over 4 weeks of treatment: evidence from a 192 channel quantitative electroencephalography study. *Biological Psychiatry*. 2014 Sep15;76(6):e13-4. (9)

#### Q10. Other financial support

Please list all key financial support that you have received in the <u>last five years</u> (research grants, fellowships, commercial etc.), with the most recent first. The information provided should state: (i) Name of the funder; (ii) Name(s) of recipient(s); (iii) Title of the project; (iv) Awarded Budget with currencies; (v) Your role in the project; and (vi) Start and end dates of project. For all active awards, indicate the number of hours per week that you spend on each project.

#### Other financial support:

- 1. Ministry of Health and Family Welfare, Government of India, Central Institute of Psychiatry, "National Mental Health Survey of India" (INR 3,930,000.00), Co-Principal Investigator, August 2015 to April 2016. Led the survey in the state of Jharkhand.
- National Institute of Health, USA, Central Institute of Psychiatry, NIMHANS, Bengaluru & Schizophrenia Division, Yale University, "Acute Consequences of Cannabis Exposure" (USD 211, 588) Co-Principal Investigator, April 2017-March, 2019.
- 3. Indian Psychiatric Society, India, Nishant Goyal, "An exploratory, multi-centre study to identify phenotypic clusters in OCD" (INR 10,000/-), Principal Investigator for the state of Jharkhand; July 2017 to March 2018.
- 4. Indian Psychiatric Society, India, Nishant Goyal," Long term Course and Outcome of Bipolar disorder: A Multicentric Study" (INR 10,000/-), Principal Investigator for the state of Jharkhand; July 2018-March 2019.
- 5. University College, London, Kelly Clarke, UK, Institute of Global Health, Central Institute of Psychiatry, Ekjut, Jharkhand, "A tool to measure adolescent mental health in low- and middle-income countries: validating the Brief Problem Checklist in India" (UBP 3997.01), Co-Principal Investigator, March, 2019. I am involved as supervisor spending 1-2 hours in a week.
- 6. Indian Psychiatric Society, India, Nishant Goyal," Identifying Behavioural and Psychological Symptom Clusters of Dementia: A Multi-Centric Exploratory Study" (INR 3,00,000/-), Principal Investigator; July 2019-June 2020.
- 7. ICMR, India, Nishant Goyal, Grant-in-aid "Development and Implementation of a Brief integrated intervention Module for Children and Adolescents with Aggression and Stress in Indian Setting" (INR 17,00,000/-); Principal Investigator; July 2020 onwards
- **Q11.** Please describe how the current active awards listed above relate to this application (Limit 200 words)



The active awards listed above reiterates my position as an active collaborator and researcher involved in the field of cognitive neurosciences, child and adolescent mental health and cannabis related research. Apart from this it has given me this unique opportunity to work with both National and International agencies and researchers broadening the horizon of my expertise and experience.

**Q12.** Clinical status. These questions should be answered by only those PIs who have a medical/dental degree.

(a) Please specify your medical degree

MD (Psychiatry), Diploma in Psychological Medicine

(b) If you are clinically active, what is your specialty?

Psychiatry (Child and Adolescent Psychiatry), Non-Invasive Brain Stimulation and Cognitive Neurosciences

#### Q13. Related applications

Has a similar application been submitted / will be submitted for funding elsewhere? If yes, please provide following details: (i) Name of the funding organisation; (ii) Expected decision date; and (iii) Brief summary (under 200 words) of the other application including aims and overlap with the current proposal.

No

