



**International Symposium on Translational Neuroscience
&
XXXII Annual Conference of the Indian Academy of Neurosciences**

November 1 – 3, 2014

THEME: Translational Research: Novel Approaches to Treat Neurological and Psychiatric disorders

Tentative Scientific Program

**Venue
Convention Centre**



National Institute of Mental Health and Neuro Sciences, Bengaluru, India

Day 1: Saturday; November 1, 2014

0730 – 0830 hrs.	Registration and Breakfast
0830 – 0845 hrs.	Welcome Address
	Auditorium – 1, Convention Center, NIMHANS, Bangalore
0845 – 0930 hrs.	Keynote Address Chairperson: T.R. Raju , Senior Professor, Department of Neurophysiology, NIMHANS, Bangalore V. Mohan Kumar , Emeritus Scientist and Visiting Professor, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram, Kerala <i>Neural control of sleep takes a full circle</i>
0930 – 10.15 hrs.	B.K. Bachhawat Memorial Life Time Achievement Award Lecture Chairperson: M.K. Thakur , Brain Research Centre, Banaras Hindu University, Varanasi P. Satish Chandra , Director & Vice Chancellor, Senior Professor, Department of Neurology, National Institute of Mental Health and Neuro Sciences, Bengaluru <i>Translational Research in Epilepsy : Our Experience</i>
1015 – 1045 hrs.	Plenary Lecture 1 Chairperson: TBA Georg Reiser , Institute for Neuro Biochemistry Medical Faculty of the Otto-von-Guericke University Magdeburg Leipziger, Germany <i>Lipids in Neurodegeneration and Neuroprotection -Regulation of Peroxisome proliferator-activated receptors in brain by activation by toll-like receptors agonists</i>
1045 – 1100 hrs.	Coffee / Tea Break
	Auditorium – 2, Convention Center, NIMHANS

<p>1100 – 1300 hrs.</p>	<p>Symposium 1</p> <p>ISN Symposium Title: Molecular Stroke Research: Recent Advances of Mechanisms of Brain Damage and Therapies</p> <p>Convener: Raghu Vemuganti, University of Wisconsin, Madison, USA</p> <p>Chairperson/s: TBA</p> <ol style="list-style-type: none"> Jun Chen, University of Pittsburgh, Pittsburgh PA USA <i>Interplay of inflammation and oxidative DNA damage in cerebral ischemia</i> Johannes Boltze, Fraunhofer Institute of Cell Therapy & Immunology, Leipzig, Germany <i>Mononuclear bone marrow cell transplantation and post-stroke recovery</i> Farida Sohrabji, TAMHSC College of Medicine, Bryan, TX, USA <i>Age and sex-specific regulation of microRNA: a strategy for stroke therapy</i> Kunjan Dave, University of Miami, Miami FL USA, <i>Diabetes mediated molecular changes after stroke and therapeutic implications</i> Raghu Vemuganti, University of Wisconsin, Madison WI, USA <i>Role of noncoding RNAs in post-stroke secondary brain Damage</i>
<p>Auditorium – 3, Convention Center, NIMHANS</p>	
<p>1100 – 1300 hrs.</p>	<p>Symposium 2</p> <p>Neural Basis of Addiction</p> <p>Convener: Dipak Sarkar, Rutgers University, New Jersey, USA</p> <p>Chairperson/s: TBA</p> <ol style="list-style-type: none"> Dipak Sarkar, Distinguished Professor, Rutgers University, New Brunswick, New Jersey <i>Inheritability of alcohol epigenetic marks on the brain and its relevance for psychopathology and immune disease</i> Gunter Schumann, Chair in Biological Psychiatry, King's College, London <i>Reinforcement processing and its relevance for psychopathology: Neurobehavioural and genetic analysis in the IMAGEN study</i> Peter Dodd, The University of Queensland, Brisbane, Australia <i>Genetic Modulation of GABA and Glutamate Receptor Subunit Expression in the Human Alcoholic Brain</i> Alfreda Stadin, Professor, Chungbuk National University School of Medicine, University of South Korea, Chungbuk, South Korea <i>Personality traits, craving and genetic associations in alcoholic in-patients</i> Ratna Sircar, Professor of Psychology, The City College of New York, CUNY, New York, NY, USA, <i>Adolescent ethanol-induced cognitive deficit: role of ionotropic glutamate</i>

	<i>receptor</i>
1300 – 1400 hrs.	Lunch Dining Hall, Convention Center, NIMHANS
	Auditorium – 1, Convention Center, NIMHANS
1400 – 1600 hrs.	<p>Symposium 3</p> <p>Neurobiology of Ageing and Alzheimer's Disease</p> <p>Convener: Asha Devi, Laboratory of Gerontology, Department of Zoology, Bengaluru University, Bengaluru</p> <p>Chairperson/s: TBA</p> <ol style="list-style-type: none"> M.K. Thakur, Brain Research Centre, Banaras Hindu University, Varanasi <i>Epigenetic regulation of memory decline -Insights from aging and amnesia model</i> Asha Devi, Bengaluru University, Bengaluru <i>Hippocampal Stress Responses in the Old: An interplay of antioxidants</i> Jamuna R. Subramaniam, Associate Professor, Sri Ramachandra University, Chennai <i>Unique pathways in lifespan extension and Alzheimer disease- causing- Amyloid beta toxicity protection</i> Pravat Mandal, Professor, National Brain Research Centre, Manesar <i>Brain Glutathione Level as an Early diagnostic marker for the Alzheimer disease: Non-Invasive brain imaging study</i> Ranjit Giri, National Brain Research Centre, Manesar, Haryana <i>CNS stem cells based model of Alzheimer's disease and its implication on drug discovery</i>
	Auditorium – 2, Convention Center, NIMHANS
1400 – 1600 hrs.	<p>Symposium 4</p> <p>IAN-FAONS Symposium - Imaging Tools For Basic and Interventional Neurodegenerative Research</p> <p>Conveners: Sunil Kaul, Chief Senior Research Scientist, AIST, Japan Ishan K. Patro, Professor, Jiwaji University, Gwalior</p> <p>Chairperson: TBA</p> <ol style="list-style-type: none"> Motomichi DOI, National Institute of Advanced Industrial Science & Technology (AIST), Japan <i>Molecular and cellular analysis of neuronal circuit formation in C. Elegans</i> Riichi Kajiwara, School of Science and Technology, Meiji University, Japan <i>Whole-scale voltage imaging of limbic network using ex vivo brain preparations</i> Tomoyo Ochiishi, National Institute of Advanced Industrial Science & Technology (AIST), Japan

	<p><i>Development of new animal models of Alzheimer's disease visualizing the Intracellular dynamics of the amyloid β protein</i></p> <p>4. Tusharkanti Ghosh, University of Calcutta <i>COX -2 in neurodegeneration and immunological changes in colchicine induced rats</i></p> <p>5. Akshay Anand, Postgraduate Institute of Medical Education and Research, Chandigarh <i>Elevated expression of neurotrophic and growth factors after stem cell transplantation in a mouse model of pterygopalatine artery ligation induced retinal ischemia-reperfusion injury</i></p>
	Auditorium - 3, Convention Center, NIMHANS
1400 – 1600 hrs.	<p>Symposium – 5</p> <p>Parkinson's Disease: Hope through Basic research</p> <p>Chairperson: TBA</p> <p>1. Renu Wadhwa, National Institute of Advanced Industrial Science & Technology (AIST), Tsukuba, Japan <i>Molecular and imaging studies on the role of stress chaperone mortalin in Parkinson's disease</i></p> <p>2. Surya Pratap Singh, Associate Professor, Neurobiology Laboratory, Department of Biochemistry, Banaras Hindu University, Varanasi <i>Neuroprotection and treatment of Parkinsonian mice by <i>Mucuna pruriens</i> and <i>Withania somnifera</i></i></p> <p>3. Anita Jagota, Associate Professor, Neurobiology and Molecular Chronobiology Laboratory, Department of Animal Sciences, School of Life Sciences, University of Hyderabad, Hyderabad, Andhra Pradesh <i>Neurodegeneration studies in Aging and Parkinson Disease: Chronomics of Serotonin metabolism, Protein profile and Clock gene expression</i></p> <p>4. Pushpa Dhar, Professor, Department of Anatomy, AIIMS, New Delhi <i>Toxic effects of perinatal arsenic (iAs) exposure on developing rat cerebellum and the beneficial role of exogenous antioxidants- A preliminary study</i></p> <p>5. Nilkanta Chakrabarti, Department of Physiology, University of Calcutta, University College of Science & Technology, Kolkata, West Bengal, India <i>Spatial effects of Paraquat Toxicity in Brain to develop Parkinsonism.</i></p>
	Coffee / Tea
1600 – 1700 hrs.	<p>Poster Session</p> <p style="text-align: right;">1st Floor, Convention Centre, NIMHANS</p>
1730 – 1830 hrs.	<p>Inauguration</p> <p style="text-align: right;">Auditorium – 1, Convention Centre, NIMHANS</p>
1900 – 2130 hrs.	Dinner

Day 2: Sunday; November 2, 2014

	Auditorium – 1, Convention Center, NIMHANS
0900 – 0930 hrs.	KT Shetty Memorial Oration Chairperson: TBA B.S. Shankaranarayana Rao , National Institute of Mental Health and Neuro Sciences, Bengaluru <i>The Ever Changing Brain : New Challenges in treating Brain Disorders</i>
0930 – 1000 hrs.	Plenary Lecture 2 Chairperson: TBA Upinder Singh Bhalla , National Centre for Biological Sciences (NCBS), Bengaluru <i>Hippocampal activity and connectivity changes during learning, as seen through two-photon imaging</i>
1000 – 1030 hrs.	Plenary Lecture 3 Chairperson: TBA Preeti Joshi , Professor and Head, National Institute of Mental Health and Neuro Sciences, Bengaluru <i>To be updated</i>
1030 – 1100 hrs.	Plenary Lecture 4 Chairperson/s: TBA Ghanshyam N. Pandey , Professor Director, Mood Disorders and Suicide Research, University of Illinois at Chicago, Chicago, IL, USA <i>Adaptive and Innate Immunity in Depression and Suicide</i>
1100 – 1130 hrs.	Coffee / Tea Break
1130 – 1330 hrs.	Auditorium – 2, Convention Center, NIMHANS Symposium 6 Neuroinfection and Neurodegeneration Chairperson/s: TBA <ol style="list-style-type: none">Pankaj Seth, Professor, National Brain Research Centre, Manesar, Gurgaon <i>Friends turn foe - Role of astrocytes in HIV-1 neurodegeneration</i>Pravir Kumar, Associate Professor, Delhi Technological University, Delhi <i>Abrogated cell cycle entry and neuro-muscular degeneration: a lethal move by cell</i>

	<p>3. Rakesh Shukla, Head, Department of Pharmacology, CDRI – Central Drug Research Institute, Lucknow, Professor: Academy of Scientific and Innovative Research (AcSIR) <i>Contribution of astroglial cells to the development of Alzheimer's disease pathology</i></p> <p>4. S. Prasad, Banaras Hindu University, Varanasi <i>Mechanisms of recovery of memory loss by Bacopa monnieri extract in the scopolamine- induced amnesic mice</i></p> <p>5. S. K. Trigun, Biochemistry section, Department of Zoology, Banaras Hindu University, Varanasi, INDIA <i>Exploring Pannexin1-nNOS Axis as a Therapeutic Target in a Neuroexcitotoxic Model</i></p>
	<p>Auditorium – 3, Convention Center, NIMHANS</p>
<p>1130 – 1330 hrs.</p>	<p>Symposium 7</p> <p>Molecular Mechanisms of Neurodegeneration and Neuroprotection – Advances and Challenges</p> <p>Convener: Vinay K. Khanna, CSIR – Indian Institute of Toxicology Research, Lucknow</p> <p>Chairperson: P.K. Seth, Biotech Park, Lucknow</p> <p>1. A. B. Pant, CSIR-Indian Institute of Toxicology Research, Lucknow <i>Molecular mechanism of switching TrkA/p75NTR signaling in monocrotophos Induced neurotoxicity in stem cell derived neuronal cells</i></p> <p>2. Vinay K. Khanna, CSIR-Indian Institute of Toxicology Research, Mahatma Gandhi Marg, Lucknow <i>Brain dopaminergic and cholinergic alterations following arsenic exposure in developing rats – An insight into the molecular mechanism</i></p> <p>3. Anil Kumar Chauhan, Department of Internal Medicine, University of Iowa, Iowa City, IA, USA <i>Genetic ablation of alternatively-spliced extra domain A of cellular fibronectin Protects hypercholesterolemic mice from acute stroke injury by reducing thrombo-inflammation</i></p> <p>4. Rajat Sandhir, Professor, Punjab University, Chandigarh, Punjab <i>S-nitrosoglutathione attenuates blood brain barrier disruption in experimental diabetes: Role of matrix metalloproteinases and tight junction proteins</i></p> <p>5. Manorama Patri, School of Life Sciences, Ravenshaw University, Cuttack <i>Benzo[a]pyrene-Induced Anti-Depressive-like Behaviour in Adult Wistar rats: Role of Monoaminergic Systems</i></p>
<p>1330 – 1430 hrs.</p>	<p>Lunch Break</p> <p>Dining Hall, Convention Center, NIMHANS</p>
	<p>Auditorium – 1, Convention Center, NIMHANS</p>
<p>1430 – 1630 hrs.</p>	<p>Symposium 8</p>

Developmental Neurobiology

Convener:

Zaved Ahmed Khan, FICER, Assistant Professor, VIT University, Vellore, Tamil Nadu

Chairperson/s: TBA

1. **T. S. Roy**, All India Institute of Medical Sciences, New Delhi
Development and aging changes in the human auditory nerve, spiral ganglion and cochlear nucleus
2. **Soumya Iyengar**, Additional Professor and Scientist National Brain Research Centre, Manesar, Gurgaon
Development of Neural Circuits in the Human Auditory Cortex
3. **Usha Rajamma**, Manovikas Kendra Rehabilitation & Research Institute for the Handicapped, Kolkata, West Bengal
Serotonin transporter gene (SLC6A4) polymorphisms modulate platelet 5-HT level and specific behavioural phenotypes of autism
4. **Mehdi Hayat Shahi**, Interdisciplinary Brain Research Centre (IBRC), Aligarh Muslim University, Aligarh
Role of Sonic hedgehog signaling transcription factors in brain tumors development
5. **Mukhopadhyay K**, Manovikas Biomedical Research and Diagnostic Centre, Kolkata - 700107, India.
DRD4 promoter variants: Significant association with short attention span and information processing error in eastern Indian ADHD probands.

Auditorium – 2, Convention Center, NIMHANS

1430 – 1630 hrs.

Symposium 9

Neural Plasticity and Brain Repair

Convener:

Gurucharan Kaur, Department of Biotechnology, Guru Nanak University, Amritsar

Chairperson:

N.B. Joshi, Professor-Emeritus-CSIR, National Institute of Mental Health and Neuro Sciences, Bengaluru

1. **Gurcharan Kaur**, Professor, Guru Nanak Dev University, Amritsar
Search for natural products with neurodifferentiation and neuroprotective potential
2. **Aurnab Ghose**, Indian Institute of Science Education Research (IISER), Pune
Peptidergic neuromodulation of the feeding drive
3. **N. K. Subedar**, Indian Institute of Science Education and Research (IISER), Pune

	<p><i>Noradrenergic innervation from locus coeruleus to posterior ventral tegmental area regulates ethanol reward in rats</i></p> <p>4. Praful Singru, National Institute of Science Education and Research (NISER), Bhubaneswar, Orissa <i>Neural circuitry regulating food intake, energy balance and reproduction: shared neural pathways and common messengers</i></p> <p>5. Sunita Mittal, Professor and Head, Department of Physiology, Shri Guru Ram Rai Institute of Medical & Health Sciences (SGRRIMHS), Dehradun, Uttarakhand <i>Processing and improvement of memory</i></p>
	Auditorium – 3, Convention Center, NIMHANS
1430 – 1630 hrs.	<p>Symposium 10</p> <p>Current Trends in Neuroscience</p> <p>Convener:</p> <p>Chairperson:</p> <ol style="list-style-type: none"> 1. Gayathri N, Professor of Neuropathology, National Institute of Mental Health and Neuro Sciences, Bengaluru 2. Kamalesh Gulia, Sleep Disorders Research Lab, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum, Kerala, India <ol style="list-style-type: none"> 1. Anil Kumar, Professor and Chair, Kansas City, USA <i>HIV-1 gp120 mediated ER Stress and Cell Death in CNS</i> 2. Gurwattan S. Miranpuri, University of Wisconsin, Madison, WI <i>Considerations of Fluidic Delivery to the Parenchyma</i> 3. Sunil Kumar Hota, Head, Neuroscience Research Group, Defence Institute of High Altitude Research, Leh-Ladakh <i>Hypoxic neurodegeneration: looking beyond excitotoxicity & apoptosis</i> 4. R. V. Omkumar, Scientist-F, Molecular Neurobiology Division, Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram <i>Neuroprotection by NMDA receptor inhibition- Search for new molecules</i> 5. R Mishra, Banaras Hindu University, Varanasi
	Coffee / Tea
1630 – 1730 hrs.	<p>Poster Session</p> <p>1st Floor, Convention Centre, NIMHANS</p>
1800 – 1900 hrs.	<p>General Body Meeting</p> <p>Auditorium – 2, Convention Centre, NIMHANS</p>
1900 – 2000 hrs.	<p>Cultural Events</p> <p>Auditorium – 1, Convention Centre, NIMHANS</p>

Day 3: Monday; November 3, 2014

	Auditorium – 1, Convention Center, NIMHANS
0900 – 0930 hrs.	Professor Mahdi Hasan Memorial Lecture Chairperson/s: TBA S.K. Shankar, Senior Professor- Emeritus, National Institute of Mental Health and Neuro Sciences, Bengaluru To be updated
0930 – 1000 hrs.	Plenary Lecture 5 Chairperson/s: TBA Shashi B Singh, Outstanding Scientist & Director, Defence Institute of Physiology and Allied Science, Timarpur, Delhi <i>Neuropsychological assessment for cognitive decline in acclimatized lowlanders staying at high altitude using Multi-domain cognitive screening test</i>
1000 - 1030 hrs.	Plenary Lecture 6 Chairperson/s: TBA Bindu M Kutty, Professor of Neurophysiology, National Institute of Mental Health and Neuro Sciences, Bengaluru <i>Human Sleep Organization: A window to assess brain functions from illness to wellness</i>
1030 – 1100 hrs.	Plenary Lecture 7 Chairperson/s: TBA Subhash C. Pandey, Professor & Director, Neuroscience Alcoholism Research, University of Illinois at Chicago, Chicago, IL <i>Neuroepigenetics and Alcoholism</i>
1100 – 1130 hrs.	Coffee / Tea Break
1130 – 1330 hrs.	Tulsabai Somani Educational Trust Award Auditorium – 1, Convention Center, NIMHANS
	Dr. D. M. Kar Prize Auditorium – 1, Convention Center, NIMHANS
	Auditorium – 2, Convention Center, NIMHANS
1130 – 1330 hrs.	Symposium 11 Promising research on Parkinson's Disease Convener: K P Mohanakumar, CSIR – Indian Institute of Chemical Biology, Kolkata Chairpersons: 1) Dr. Jharna Ray , S. N. Pradhan Centre for Neurosciences, University of Calcutta, Kolkata, India

	<p>2) Dr. Srinivas Bharath, Department of Neurochemistry, NIMHANS, Bangalore</p> <p>1. Mobarak Hossain, Director, IBRC, Aligarh Muslim University, Aligarh <i>Targeting Sonic hedgehog signaling pathway to treat Parkinson's disease</i></p> <p>2. Mohanakumar KP, CSIR-Indian Institute of Chemical Biology, Division of Cell Biology and Physiology, Laboratory of Clinical and Experimental Neuroscience, 4-Raja S. C. Mullick Road, Jadavpur, Kolkata – 700 032, India <i>HSPA8 and prohibitin, two differentially expressed proteins in substantia nigra and ventral tegmental area: Relevance to dopaminergic neurodegeneration of substantia nigra in Parkinson's disease.</i></p> <p>3. Subhas Chandra Biswas, Laboratory of neurodegenerative diseases, CSIR-Indian Institute of Chemical Biology, 4 Raja S. C. Mullick Road, Kolkata 700 032 <i>Transcription factor FoxO3a mediates neuron death in a model of Parkinson's Disease</i></p> <p>4. Samir K Maji, Department of Biosciences and Bioengineering, IIT Bombay, Powai, Mumbai 400076 <i>Understanding the mechanism of α-synuclein aggregation and its modulation: therapeutic approach against PD</i></p> <p>5. Shasi V Kalivendi, Centre for Chemical Biology, CSIR-Indian Institute of Chemical Technology, Uppal Road, Hyderabad <i>In search of a Promising Target for Parkinson's Disease: Role of Iron-Dependent Oxidative Mechanism Versus Protein Aggregation Events</i></p>
1130 - 1330 hrs.	Auditorium - 3, Convention Center, NIMHANS
	<p style="color: red;">Society for Neuroscience (SFN) - Bengaluru Chapter Sponsored Session</p> <p style="color: red;">Popularization of Neuroscience Interactive session with School children</p> <p>Convener:</p> <p>T.N. Sathyaprabha, Department of Neurophysiology, National Institute of Mental Health and Neuro Sciences, Bengaluru</p> <p>S. K. Shankar, Department of Neuropathology, National Institute of Mental Health and Neuro Sciences, Bengaluru</p> <p>P.K. Seth, Biotech Park, Lucknow</p> <p>T. R. Raju, NIMHANS, Bengaluru</p> <p>A.K. Agarwal, CSIR - IITR, Lucknow</p> <p>M.C. Arunan, TIFR, Mumbai</p> <p>Nagarjuna, TIFR, Mumbai</p> <p>Anita Mahadevan, NIMHANS, Bengaluru</p> <p>Yasmin Khan, Sophia College, Mumbai</p>
1330 - 1430 hrs.	Lunch Dining Hall, Convention Center, NIMHANS
	Auditorium - 2, Convention Center, NIMHANS
1430 - 1630 hrs.	<p style="color: red;">Symposium 12</p> <p style="color: red;">Neurobiology of Schizophrenia : Current Approaches</p>

	<p>Convener:</p> <p>Bindu M. Kutty, Department of Neurophysiology, National Institute of Mental Health and Neuro Sciences, Bengaluru John P John, Department of Psychiatry, National Institute of Mental Health and Neuro Sciences, Bengaluru</p> <p>Chairperson/s: TBA</p> <ol style="list-style-type: none"> John P John, Department of Psychiatry, National Institute of Mental Health and Neuro Sciences, Bengaluru <i>Abnormalities of regional brain morphometry in schizophrenia: Effect of phenotype or genotype?</i> G. Venkatasubramanian, Additional Professor, National Institute of Mental Health and Neuro Sciences, Bengaluru <i>Neuroplasticity & transcranial Direct Current Stimulation (tDCS): Translational Applications in Schizophrenia</i> H.N. Harsha, Department of Physiology, KSHEMA, Mangalore <i>Threat perception and its neural correlates in schizophrenia</i> Sunil V Kalmady, National Institute of Mental Health and Neuro Sciences, Bengaluru <i>Neuroimmunological Correlates of Hippocampus Abnormalities in Antipsychotic - Naive Schizophrenia : Translational Implications</i> Govindaiah, Research Scientist, University of Illinois, Urbana, IL <i>Dysregulated GABAergic inhibition in Fragile X Syndrome</i>
1430 - 1630 hrs.	<p>Auditorium - 3, Convention Center, NIMHANS</p> <p>Special Symposium : Exploring the Horizon - Careers Beyond Academic Research</p> <p>Convener: Tora Mitra Ganguli, GlaxoSmithKline Consumer, Gurgaon</p> <p>Chairpersons:</p> <ol style="list-style-type: none"> Akshay Anand, PGI, Chandigarh R. V. Omkumar, Scientist-F, Molecular Neurobiology Division, Rajiv Gandhi, Centre for Biotechnology, Thiruvananthapuram <ol style="list-style-type: none"> Anurag Varshney, Daiichi Sankyo India Rakhi Pal, INSTEM-NCBS, Bengaluru Sudarshana Purkayastha, Unilever India Ltd. Tora Mitra Ganguli, GlaxoSmithKline Consumer Healthcare, Gurgaon
1630 - 1730 hrs.	<p>Auditorium - 1, Convention Center, NIMHANS, Bengaluru</p>
1700 hrs. onwards	<p>Valedictory Function</p> <p>High Tea</p>