



Annual Conference of Indian Academy of Neurosciences

October 31 – November 2, 2015



“Neuroscience Research from Mechanisms to Applications”

Tentative Scientific Program

Day 1, Saturday, October 31, 2015	
	Auditorium-1 Evening Studies, Panjab University, Chandigarh
08.00 -- 08.45 h	Registration
08.45 -- 09.30 h	<p>Chairpersons: Subrata Sinha, NBRC, Gurgaon, India Anand Bachawat, IISER, Mohali, India</p> <p><u>BK Bachawat Memorial Life Time Achievement Award</u> R. Shukla, King George’s Medical University, Lucknow, India <i>Headache Research in India: A Neglected Medical Entity</i></p>
09.30 -- 11.00 h	<p>Chairpersons: K.P. Mohan Kumar, CSIR-IICB, Kolkata, India S. Ganesh, IIT, Kanpur, India</p> <p>Plenary Lecture 1: Russell H. Swerdlow, University of Kansas, USA <i>Energy Failure and Mitochondrial Cascades in Alzheimer’s Disease</i></p> <p>Plenary Lecture 2: P. Hemachandra Reddy, TTUHSC, USA <i>Mitochondrial Division Inhibitor 1 Protects Against Mutant Huntingtin-induced Abnormal Mitochondrial Dynamics and Neuronal Damage in Huntington’s Disease</i></p> <p>Plenary Lecture 3: Jagat R. Kanwar, Deakin University, Australia <i>Brain targeted nanocarriers for neuroprotection and blockade of inflammation: Future nanomedicine</i></p>
11.00 -- 11.20 h	Coffee / Tea Break
11.20 -- 13.20 h	<div style="display: flex; justify-content: space-between;"> Auditorium-1 Evening Studies Auditorium-2 Gandhi Bhawan </div>



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	<p>Symposium 1- IAN-FAONS Symposium: Cellular and Molecular Neuroscience</p> <p>Chairpersons: Inderjit Singh, MUSC, USA Bimla Nehru, PU, Chandigarh, India</p> <ol style="list-style-type: none"> Masami Kojima, Molecular and Cellular Pathology, Biomedical Research Institute, AIST, Japan <i>New insights into the biology of growth factor and the etiology of dementia: BDNF pro-peptide actions facilitate hippocampal LTD and are altered by the common BDNF polymorphism Val66Met</i> Charanjit Kaur, Yong Loo Lin School of Medicine, NUS, Singapore. <i>Cerebral oedema induced by blood-brain barrier dysfunction in the hypoxic developing brain</i> Sandeep Agrawal, UNMC, Nebraska, USA <i>Axonal injury and calcium deregulation</i> Sandhya P. Koushika, DBS-TIFR, Mumbai, India <i>Regulation of synaptic vesicle transport in neurons</i> 	<p>Symposium 2- Neuroplasticity</p> <p>Chairpersons: Gursharan Kaur, GNDU, Amritsar, India Ishan Patro, JU, Gwalior, India</p> <ol style="list-style-type: none"> Manorama Patri, Ravenshaw University, Cuttack, India <i>Role of NMDA receptor in Benzo[a]pyrene-induced alternation in actin cytoskeleton of rat hippocampus</i> Samarjit Bhattacharyya, IISER, Mohali, India <i>The inside story of Metabotropic Glutamate Receptors (mGluRs)3.</i> Suman Jain, AIIMS, New Delhi, India <i>Rhythmic sound stimulation during prenatal period facilitates postnatal functional development of visual cortex in domestic chicks</i> R. V. Omkumar, RGCB, Thiruvananthapuram, India <i>Inhibiting NMDA receptor for Neuroprotection: Revisiting the strategy</i>
13.20 -- 14.00 h	Lunch	
14.00 -- 16.00 h	<p>Auditorium-1 Evening Studies</p> <p>Symposium 3- Ayurveda and Mental Health</p> <p>Chairpersons: M.K. Thakur, BHU, Varanasi, India Y.K. Gupta, AIIMS, New Delhi, India</p> <ol style="list-style-type: none"> Y.K. Gupta, AIIMS, New Delhi, India 	<p>Auditorium-2 Gandhi Bhawan</p> <p>Symposium 4- Systems and Computational Neuroscience</p> <p>Chairpersons: Preeti G Joshi, NIMHANS, Bengaluru, India Manoj Kumar, UIPS, Chandigarh, India</p> <ol style="list-style-type: none"> B. Padmanabhan, NIMHANS, Bengaluru, India



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	<p><i>Topic to be announced</i></p> <ol style="list-style-type: none"> Vinay K Khanna, CSIR-IITR, Lucknow, India <i>Neuroprotective efficacy of curcumin in arsenic induced mitochondrial dysfunctions in rat brain</i> Gautam Palit, CDRI, Lucknow, India <i>Potential Role of Bacopa monniera</i> S. Prasad, BHU, Varanasi, India <i>Bacopa monnieri extract (CDRI-08) ameliorates memory impairments by modulating scopolamine-induced oxidative stress and altered synaptic plasticity markers in the hippocampus of amnesic mice.</i> Vijay Paramanik, IGNTU, Amarkantak, India <i>Indian traditional medicine: A reverse innovation</i> 	<p><i>Identification of Novel Inhibitors for the BRD2 Bromodomain associated with cancer and neurodegenerative diseases: A Structure-based Approach</i></p> <ol style="list-style-type: none"> Deepak Sharma, IMTECH, Chandigarh, India <i>Hsp90-associated Immunophilin Homolog Cpr7 is Required for the Mitotic Stability of [URE3] Prion in Saccharomyces cerevisiae</i> Tiratha Raj Singh, JUIT, Wagnaghat, India <i>Computational predictions and evaluations for biological parameters and regulatory patterns for Alzheimer's disease</i> Avneet Saini, PU, Chandigarh, India <i>Tubulin Binding Peptides from Intermediate Filaments</i>
16.00 – 17.00 h	Poster Session I & Coffee / Tea Break	
16.00 – 17.00 h	Auditorium-1 Evening Studies	Auditorium-2 Gandhi Bhawan
	<p>Short Scientific Session + DRINK-BAR (3S DRINK-BAR) Detailed Recitation Interaction Networking & Knowledge-Building About Research (Ashwagandha Leaves for Brain and Body Health) Convener: Renu Wadhwa, AIST, Japan</p> <ol style="list-style-type: none"> Rajat Sandhir, PU, Chandigarh, India <i>Ashwagandha and Ischemic Injury</i> Mahendra Thakur, BHU, Varanasi, India <i>Ashwagandha leaf extracts for memory enhancement</i> 	<p>Cube Session Convener: Arunan MC, TIFR, Mumbai, India Reeteka Sud, IIS Univ, Jaipur, India <i>Innovations in Neurosciences Education: Research in Simple Model Systems in networked colleges across India</i></p>



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	<ol style="list-style-type: none">3. Sunil Kaul, AIST, Japan <i>Antistress and neuroregenerative potential in Ashwagandha leaves</i>4. Ishan Patro, Jiwaji University, Gwalior, India <i>Ashwagandha leaves attenuates neuroinflammation and ameliorates behavioural deficits in Poly I:C infused rats</i>5. Pankaj Seth, NBRC, Gurgaon, India <i>Ashwagandha and neuronal precursor cell proliferation</i>6. Durai Sundar, IIT, Delhi, India <i>Bioinformatics insights to the bioactivities of Ashwagandha leaves</i>7. Gurcharan Kaur, GNDU, Amritsar, India <i>Neuroplasticity and Ashwagandha leaves</i>8. Pratap Pati, GNDU, Amritsar, India <i>Improvement of Withania Somnifera- Challenges and Prospects</i>9. Renu Wadhwa, AIST, Japan <i>Topic to be announced</i>	
17.30 -- 18.30 h	Law Auditorium, Panjab University Inauguration	
18.30 – 19.00 h	Inaugural Address Prof. K. Vijay Raghavan , Secretary, DBT, Govt. of India	
19.00 -- 20.00 h	Cultural Evening	



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20.00 Onwards	Dinner (Alumni House, Sector-25, Panjab University)	
Day 2, Sunday, November 1, 2015		
	Auditorium-1 Evening Studies	
09.00 – 10.30 h	<p>Chairpersons: P.K. Seth, Biotech Park, Lucknow, India K.D. Gill, PGIMER, Chandigarh, India</p> <p>Plenary Lecture 4: Mahendra Rao, Q Therapeutics, USA <i>Making and Using iPSC cells for CNS disorders</i></p> <p>Plenary Lecture 5: Avindra Nath, NINDS, USA <i>Endogenous retroviruses in stem cell proliferation and differentiation</i></p> <p>Plenary Lecture 6: Subhash C. Pandey, UIC, USA <i>Adolescent Alcohol Exposure and Stable Brain Epigenetic Marks: A Role in Adult Psychopathology</i></p>	
10.30 – 10.50 h	Coffee / Tea Break	
10.50 – 12.50 h	Auditorium-1 Evening Studies	Auditorium-2 Gandhi Bhawan
	<p>Symposium 5- R Nath Memorial Symposium- Neuronal Stem Cells and Epigenetics</p> <p>Chairpersons: Mahendra Rao, Q Therapeutics, USA Avindra Nath, NINDS, USA</p> <ol style="list-style-type: none"> Pankaj Seth, NBRC, Gurgaon, India <i>Stem Cell Fate Determinant TRIM32 Mediates HIV-1 Neuropathogenesis</i> ST Dheen NUS, Singapore <i>High glucose-induced changes in epigenetic</i> 	<p>Symposium 6- Neurodegenerative Diseases I</p> <p>Chairpersons: S. C. Pandey, UIC, USA Vivek Lal, PGIMER, Chandigarh, India</p> <ol style="list-style-type: none"> Jyotirmoy Banerjee, NBRC, Gurgaon, India <i>Understanding complexities of drug-resistant epilepsy using bedside-back-to-bench approach: A paradigm shift in epilepsy research</i> Sasanka Chakrabarti, ICARE Institute of Medical Sciences and Research, Haldia, India



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	<p><i>mechanisms that regulate the cell fate specification of mouse embryonic neural stem cells</i></p> <ol style="list-style-type: none"> A.B. Pant, IITR, Lucknow, India <i>Topic to be announced</i> Raghu Vemuganti, University of Wisconsin, USA <i>Role of long noncoding RNAs in post-stroke brain damage</i> Arvind Kumar, CCMB, Hyderabad, India <i>Histone lysine demethylases of KDM4 and KDM7 family play role in stress-induced neural and behavioural changes in mouse model of depression and related affective disorders</i> 	<p><i>Developing metabolic models of Alzheimer's disease pathogenesis in cell lines from epidemiological data.</i></p> <ol style="list-style-type: none"> Rajnikant Mishra, BHU, Varanasi, India <i>Pax6 influences cascades of genes associated with neurodegeneration</i> Nirmal Singh, Punjabi University, Patiala, India <i>Liver X Receptors as Promising Pharmacological Targets for Dementia of Alzheimer's Type</i> Anil K. Mantha, Central University of Punjab, Bathinda, India <i>Understanding the neuroprotective role of APE1/Ref-1 and its interaction with ADO against Amyloid β-mediated mitochondrial dysfunction in Alzheimer's disease</i>
12.50 – 13.30 h	Lunch	
13.30 – 15.30 h	<p>Auditorium-1 Evening Studies</p> <p><u>Tulsabai Somani Educational Trust Award</u></p> <p>Chairpersons: Vinay K. Khanna, CSIR-IITR, Lucknow, India Pankaj Seth, NBRC, Gurgaon, India</p> <ol style="list-style-type: none"> Amit Kumar, Punjabi University, Patiala, India <i>Rolipram improves memory deficits and neuropathological alterations in mouse models of dementia of Alzheimer's Type</i> Arpita Konar, BHU, Varanasi, India <i>Neurospine emerges as a novel target for recovery of amnesia</i> Mehdi H. Shahi, IBRC-AMU, Aligarh, India 	



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Role of novel transcription factor BMI1 in Shh-Gli1 signaling stem cell-mediated gliomagenesis

4. **Mahar Fatima**, NBRC, Gurgaon, India

TRIM32 Mediates HIV-1 Tat Induced Quiescence of Human Neural Precursor Cells through disruption in miRNA regulation

5. **Sunil Jamuna Tripathi**, NIMHANS, Bengaluru, India

Inactivation of Basolateral Amygdala Ameliorates Chronic Stress-Induced Cognitive Deficits by Preventing Structural and Molecular Alterations in the Prefrontal Cortex

6. **Aijaz Naik**, Jiwaji University, Gwalior, India

Impaired temporal gliogenesis and behavioural sequelae in intra-generational protein malnourished rats

7. **Susmita Sil**, University of Calcutta, Kolkata, India

Hippocampal cox-2 on the cognitive impairment – neurodegeneration – neuroinflammation link in colchicine induced Alzheimer Disease rats

Dr. D.M. Kar Prize

Chairpersons: **Vinay K. Khanna**, CSIR-IITR, Lucknow, India

Pankaj Seth, NBRC, Gurgaon, India

1. **Ashok K Datusali**, NIPER, Mohali, India

Improvement of cognitive deficits by BAY 11-7082, a NF- κ B inhibitor is mediated through modulation of CREB/PICK1 and neurotransmitter homeostasis in diabetes

2. **Avishek Halder**, PU, Chandigarh, India

Effect of oxygen and glucose deprivation on mitochondrial biogenesis mediated through innate immune response in C6 glial cells

3. **Gajanan Shelkar**, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur, India

Locus coeruleus noradrenergic system regulates CART self-administration in pVTA

4. **Mayank Gautam**, AIIMS, New Delhi, India

Antinociceptive effect of 1400W, an inhibitor of inducible nitric oxide synthase, following hind paw incision in rats

5. **Vedangana Saini**, GNDU, Amritsar, India

The polysialic acid mimetics 5-nonyloxytryptamine and vinorelbine facilitate repair after spinal cord injury in mice



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	<p>6. Sourish Ghosh, NBRC, Gurgaon, India <i>Perturbation of Cholesterol Homeostasis in Brain Facilitates Viral Assembly of Chandipura Virus</i></p> <p>7. Suwarna Chakraborty, NIMHANS, Bengaluru, India <i>Amelioration of Depression-induced Cognitive Deficits by Chronic N-Acetyl Cysteine Treatment</i></p>	
15.30 – 16.30 h	<p style="text-align: center;">Poster Session II & Coffee/ Tea Break</p>	
16.30 – 18.00 h	<p>Auditorium-1 Evening Studies</p>	
	<p>Symposium 7- Brain Lipids & Ageing Chairpersons: Avtar K. Singh MUSC, USA R. Prasad, PGIMER, Chandigarh, India</p> <ol style="list-style-type: none"> Lisa Chakrabarti, University of Nottingham, UK <i>Quantification of oxylipins in mitochondrial extracts of Parkinsons Disease cerebellum by LC-MS/MS.</i> Sukhinder Cheema, MU, Canada <i>Omega-3 fatty acids support brain health by increasing the expression of neurotrophins and the formation of myelin sheath</i> Anil Kumar Chauhan, University of Iowa, USA <i>Genetic ablation of extra domain A of fibronectin in hypercholesterolemic mice improves stroke outcome by reducing thrombo-inflammation</i> Anita Jagota, University of Hyderabad, Hyderabad, India <i>Effect of antioxidants on age induced alterations in neural regulation of Biological Clock</i> 	<p>Panel Discussion</p> <p>Borderless Neuroscience Research in India – Power of Introspection</p>



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18.00 – 18.30 h	General Body Meeting	
19.30 Onwards	Dinner (Yadavindra Gardens, Pinjore, Haryana)	
Day 3, Monday, November 2, 2015		
	Auditorium-1 Evening Studies	
09.00 -- 09.45 h	<p>Chairperson: B.S. Shankaranarayana Rao NIMHANS, Bengaluru, India</p> <p>KT Shetty Oration S. Ganesh, IIT, Kanpur, India <i>Glycogen in neurodegeneration: Cause or consequence?</i></p>	
9.45 --10.45 h	<p>Chairpersons: Shashi Wadhwa, AIIMS, New Delhi, India C.S. Gautam, GMCH, Chandigarh, India</p> <p>Plenary Lecture: 7 Inderjit Singh, MUSC, USA <i>Multiple Sclerosis; Disease mechanisms and Statin therapy</i></p> <p>Plenary Lecture: 8 Shilpa Buch, UNMC, USA <i>Drug abuse mediated potentiation of HAND : Blaming the Messenger</i></p>	
10.45 – 11.05 h	Coffee / Tea Break	
11.05 – 13.05 h	Auditorium-1 Evening Studies	Auditorium-2 Gandhi Bhawan
	<p>Symposium 8- Glial Biology</p> <p>Chairpersons: Ishan Patro, JU, Gwalior, India Anil Kumar, UNKC, USA</p> <p>1. Preeti G. Joshi, NIMHANS, Bengaluru, India</p>	<p>Symposium 9- Neurodegenerative Diseases II</p> <p>Chairpersons: Shilpa Buch, UNMC, USA D.K. Dhawan, PU, Chandigarh, India</p> <p>1. Renu Wadhwa, AIST, Japan</p>



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	<p><i>Astrocytic Plasticity in Epilepsy</i></p> <ol style="list-style-type: none"> Ishan Patro, Jiwaji University, Gwalior, India <i>Implications of early life neuroinflammation on cognitive abilities at later life</i> Shashi Bala, DIPAS- DRDO, New Delhi, India <i>Neuro-Glial Interplay During Hypoxia</i> Rakesh Shukla, CDRI, Lucknow, India <i>Memantine attenuates streptozotocin-induced Alzheimer's disease like pathology in astrocytes: The role of insulin receptors and neurotrophic factor</i> Chandrasekhar Sagar, NIMHANS, Bengaluru, India <i>Combination effects of anti-cancer agents on Human Glioblastoma explant culture - An ultrastructural study</i> 	<p><i>Point mutations in stress chaperone, mortalin, contribute to Parkinson pathology</i></p> <ol style="list-style-type: none"> Rajeswari R Moganty, AIIMS, New Delhi, India <i>150 years of Friedreich's Ataxia: Diagnosis to therapy</i> SK Trigun, BHU, Varanasi, India <i>Implication and modulation of Pannexin-1 in a metabolic brain disorder; Hepatic encephalopathy</i> Phalguni Anand Alladi, NIMHANS, Bengaluru, India <i>Admixing Has a Modulatory Influence On Substantia Nigra Neurons: An Experimental Evidence For Differential Prevalence of Parkinson's Disease</i> Sadhana Sathaye, ICT, Mumbai, India <i>Biomarkers and disease mechanisms in neurological/neurodegenerative disorders: In search of effective therapeutics.</i>
13.05 – 13.50 h	Lunch	
13.50 – 15.50 h	Auditorium-1 Evening Studies	Auditorium-2 Gandhi Bhawan
	<p>Symposium 10- Therapies in Neurodegeneration</p> <p>Chairpersons: S.S. Sharma, NIPER, Mohali, India Shashi Bala, DIPAS, New Delhi, India</p> <ol style="list-style-type: none"> B.S Shankaranarayana Rao, NIMHANS, Bengaluru, India <i>Novel therapeutic strategies to treat epilepsy-induced cognitive deficits</i> Sashidhar Pai, MUSC, USA 	<p>Symposium 11- Molecular Neurobiology</p> <p>Chairpersons: R.C. Srimal, CDRI, Lucknow, India Sukhinder Cheema, MU, Canada</p> <ol style="list-style-type: none"> Anil Kumar, UMKC, USA <i>HIV-1 gp120 and Methamphetamine-Mediated Neurotoxicity</i> Udai Bhan Pandey, Univ of Pittsburgh, USA <i>Perturbed stress granule dynamics in RNA-binding</i>



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	<p><i>X-Adrenoleukodystrophy; Peroxisome and mitochondria associated disease mechanisms and HDAC inhibitor therapy</i></p> <p>3. Avtar K. Singh MUSC, USA <i>Stroke; Disease mechanisms and GSNO therapy</i></p> <p>4. Kumar Sambamurti, MUSC, USA <i>Alzheimer’s Disease; Disease mechanisms and potential therapeutic options</i></p> <p>5. Shyam S. Sharma, NIPER, Mohali, India <i>Neuroprotectives for Stroke: Current Status and Translational Challenges</i></p> <p>6. Kalpna Barhwal Hota, DIHAR, Leh-Ladakh, India <i>Salidroside mediates neuroprotection in hypoxia through insulin receptor and SIRT1 activation</i></p>	<p><i>proteinopathies</i></p> <p>3. Gunasekaran Ramanathan, VMKVMC, Salem, India <i>Effect of vibration on rat spinal dorsal horn neurons synaptic neurotransmitter release</i></p> <p>4. Girdhari Lal, NCCS, Pune, India <i>Changes at blood-brain barrier during inflammation and autoimmunity</i></p> <p>5. Tushar Kanti Ghosh, University of Calcutta, Kolkata, India <i>Effects of black tea (TV 25 variety) on the neuroinflammation and peripheral immunological changes in Aβ induced rat model of Alzheimer Disease</i></p> <p>6. Nand K Relan, SBUMC, USA <i>Applications of PET-MR Imaging in Neurodegenerative disorders</i></p>
15.50 – 16.10 h	Coffee/ Tea Break	
16.10 – 16.40 h	AIST-PU MOU Signing Ceremony	
16.40 h	Closing Ceremony	



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