

International Update on Basic and Clinical Neuroscience Advances  
and

XXIV Annual Conference of Indian Academy of Neurosciences

December 17-20, 2006, Lucknow, India



*Industrial  
Toxicology  
Research Centre,  
Lucknow*



*Venue -  
Scientific  
Convention Centre  
King George's  
Medical University,  
Lucknow*

## For Delegates -

**T**he Scientific Convention Centre is in the heart of the city and a part of King George's Medical University. It is about 20 Kms from the airport and 8 kms from Charbagh railway station. The weather in Lucknow during December is pleasant and on a bit colder side. It is advised to get appropriate woollens.

## Accommodations

- Accommodations have been arranged in the Guest Houses / Hostels / Hotels for participants who have requested in advance.
- **Hotels**
  - Taj Regency, Gomti Nagar, Lucknow (approx. 10 kms. from the venue)
  - Clarks Avadh, M. G. Marg, Lucknow (approx. 2 kms. from the venue)
  - Arif Castles, Rana Pratap Marg, Lucknow (approx. 2½ kms. from the venue)
  - Hotel Gomti, Sapru Marg, Lucknow (approx. 4 kms. from the venue)
  - Hotel Park Inn, Laplace, Shanajaf Road, Lucknow (approx. 4 kms. from the venue)
- **Guest Houses / Hostels**
  - SGPGIMS Guest House, Raebarelli Road, Lucknow (approx. 22 kms. from the venue)
  - Institute of Judicial Training and Research, Vineet Khand, Gomti Nagar, Lucknow (approx. 14 kms. from the venue)
  - NBRI Guest House, Gokhle Marg, Lucknow (approx. 4 kms. from the venue)
  - CSIR Guest House, Sector – K, Aliganj, Lucknow (approx. 10 kms. from the venue)
  - Nehru Yuva Kendra, Hussainabad (Near Neebu Park), Lucknow (approx. 1½ kms. from the venue)
  - Management Girls Hostel, IT Crossing, Lucknow (approx. 4 kms. from the venue)

## Assistance

- A reception desk at the railway station will be available from 7.00 am to 10.00 pm with volunteers who will help the delegates to drop them at the place of their stay.
- In case of any difficulty, delegates may contact
  - Dr. R. S. Ray, Chairman Transport Committee (**Cell No. 99358-82991, land line 278-9135**)
  - Dr. V. P. Sharma, Chairman Accommodation Committee (**Cell No. 99355-00100**)
  - Dr. A. B. Pant, Joint Secretary (**Cell No. 99350-44044**)

## Programme at a Glance

Sunday, 17 <sup>th</sup> Dec. 2006	Monday, 18 <sup>th</sup> Dec. 2006	Tuesday, 19 <sup>th</sup> Dec. 2006	Wednesday, 20 <sup>th</sup> Dec. 2006
0830 Registration / Breakfast	0830 Registration / Breakfast	0830 Breakfast	0830 Breakfast
0955 - 1000 Welcome C.M. Gupta, Director, ITRC, Lucknow, India	<u>Auditorium - A</u> 0900 - 0945 B.K. Bachhawat Memorial Oration	<u>Auditorium - A</u> 0900 - 1130 SYMPOSIUM VI Recent Advances in Neuroscience of Alcoholism	0900 - 0955 NASI Young Scientist Colloquium
1000 - 1030 Plenary Lecture I Y.S. Chan, Hong Kong <i>Developmental refinement of spatial recognition circuits</i>	<u>Auditorium - A</u> 1000 - 1030 Plenary Lecture II H. Okamoto, Saitama, Japan <i>The molecular mechanisms for the left- right asymmetry of the neural circuits in the zebrafish brain I</i>	<u>Auditorium - B</u> 0900 - 1130 SYMPOSIUM VII NASI Platinum Jubilee Symposium on Cellular and Molecular Mechanisms in Neurotoxicity: Influence of Nanoparticles and Nanomaterials	1000 - 1155 SYMPOSIUM VIII Advances in Pathogenesis and Management of Parkinson's Disease
1040 - 1300 SYMPOSIUM I ISN Symposium on the Neuropathogenesis of HIV-1 Dementia	<u>Auditorium - A</u> 1040 - 1300 SYMPOSIUM III Psychiatric Disorders: A Neurobiological Perspective	<u>Auditorium - A</u> 1130 - 1330 Oral Session III Neurobiology of Disease	1200 - 1330 SYMPOSIUM IX Computational Neuroscience and Neuroimaging
	<u>Auditorium - B</u> 1040 - 1300 SYMPOSIUM IV Molecular Mechanisms of Stroke and Trauma Induced Neuronal Death	<u>Auditorium - B</u> 1130 - 1330 Oral Session IV Clinical Neuroscience	
1305 - 1345 - LUNCH	1305 - 1400 - LUNCH	1330 - 1400 - LUNCH	1330 - 1400 - LUNCH
1345 - 1415 Plenary Lecture II K. Tanaka, Saitama, Japan <i>Inferotemporal cortex and visual object recognition</i>	<u>Auditorium - A</u> 1400 - 1600 SYMPOSIUM V NASI Platinum Jubilee Symposium on Cell Signaling Pathways in Neurodegeneration, Neuroregeneration and Neuroprotection	1400 - 1530 Poster Session / Tea (Neuropharmacology and Molecular Neuroscience)	1400 - 1600 Oral Session V Mechanism of Action of Chemicals, Drugs and Neuromodulation
1420 - 1615 SYMPOSIUM II Neuroactive Herbal Preparations			1615 VALEDICTORY SESSION

1615 - 1725 Poster Session / Tea (Neurotoxicity and Neuroprotection/ Computational Neuroscience, Neuroimaging and Neuroscience Models)	<u>Auditorium - A</u> 1600 - 1800 Oral Session I Cognition and Aging	<u>Auditorium - A</u> 1535 - 1615 Special Lectures - International Collaborations	
1730 Inauguration	<u>Auditorium - B</u> 1600 - 1800 Oral Session II Neuronal Injury and Neuroprotection	1620 - 1750 Dr. D.M. Kar Prize  1800 - 1900 Tulsabai Somani Educational Trust Award	
	1815 - 1915 GB MEETING		
	1930 To Genesis Club, Kursi Road	1910 To ITRC	
1930 Reception/Dinner (Scientific Convention Centre King George's Medical University, Lucknow)	2000 Cultural Programme / DINNER Genesis Club, Lucknow	1930 Cultural Programme - Contributory / DINNER (ITRC, Lucknow)	

**International Update on Basic and Clinical Neuroscience Advances  
and**

**XXIV Annual Conference of Indian Academy of Neurosciences**

**December 17-20, 2006, Lucknow, India**

**DAY – 1**

**Sunday, December 17, 2006**

**Venue**

**Scientific Convention Centre  
King George's Medical University, Lucknow**

*Programme*

**0830 -**

Registration / Breakfast

**0955 – 1000**

**Welcome**

(C.M. Gupta, Chairman Organizing Committee and Director, ITRC, Lucknow, India)

**1000 – 1030**

**Plenary Lecture I**

**Chairperson**

P.N. Tandon, Manesar, India

**Speaker**

Y.S. Chan, Hong Kong

*Developmental refinement of spatial recognition circuits*

**1040 – 1300**

**SYMPOSIUM I**

**ISN\* Symposium on the Neuropathogenesis of HIV-1 Dementia**

*\* Sponsored by International Society For Neurochemistry  
Convener – J.D. Geiger, Grand Forks, USA.*

**Chairpersons**

P. Alfonso, Grand Forks, USA

J. D. Geiger, Grand Forks, USA

**Speakers**

**1050**

A. Nath, Baltimore, USA

*Neuropathogenesis of AIDS dementia*

**1110**

E. O. Major, Bethesda, USA

*Neural progenitor cells in pediatric AIDS encephalopathy: a new target for HIV-1 infection*

- 1130** P. Seth, Manesar, India  
*Neuronal apoptosis and chemokine production by HIV-1 Tat protein derived from Clade B and C in human fetal neural precursor cells*
- 1150** J. D. Geiger, Grand Forks, USA  
*Mechanisms of and possible therapeutic interventions against HIV-1 Tat-induced neuronal cell death – Implications for HIV-1 associated dementia*
- 1210** N. Haughey, Baltimore, USA  
*Clinical and molecular functions for sphingolipids in neurodegenerative disease*
- 1230** **Discussion**
- 1230** **EC Meeting**
- 1300 – 1345** **LUNCH**
- 1345 – 1415** **Plenary Lecture II**
- Chairperson**  
M. Hasan, Lucknow, India
- Speaker**  
K. Tanaka, Saitama, Japan  
*Inferotemporal cortex and visual object recognition*
- 1420 – 1615** **SYMPOSIUM II**  
**Neuroactive Herbal Preparations**  
Conveners - Y.K. Gupta, New Delhi, India  
C. Nath, Lucknow, India
- Chairpersons**  
R. C. Srimal, Lucknow, India  
Anil Gulati, Chicago, USA
- Speakers**
- 1425** Y. K. Gupta, New Delhi, India  
*Potential of herbal drugs in ischemia*
- 1445** C. Nath, Lucknow, India  
*Herbal preparations as memory enhancer*
- 1505** S. K. Kulkarni, Chandigarh, India  
*On the mechanism of anti-epileptic actions of Withania somnifera*

1525

D. Guha, Kolkata, India

*Role of Benincasa hispida in experimental model of epilepsy*

1545

M. Bhatnagar, Udaipur, India

*Natural extracts as neuroprotective agents*

1605

**Discussion**

1615 - 1730

**Poster Session / Tea**

(Neurotoxicity and Neuroprotection/

Computational Neuroscience, Neuroimaging and Neuroscience Models)

**Neurotoxicity and Neuroprotection****Chairperson**

R. K. Hans, Lucknow, India

**Aarathi Balijepalli, Life Science Department, Sophia College, Mumbai, India.**

Lithium enhances the growth and alters the dynamics of regeneration of Zebrafish caudal fin.

**Ajmal Ahmad, Neurotoxicology Laboratory, Department of Medical Elementology & Toxicology, Jamia Hamdard (Hamdard University), New Delhi, India.**Protective role of *Ocimum sanctum* on ischemic stroke in male wistar rats.**Amit Kamboj, Department of Biochemistry, Basic Medical Science Building, Panjab University, Chandigarh, India.**

Modification in neuronal calcium homeostasis following carbofuran exposure: Beneficial role of n-acetylcysteine

**Shah, Aparna, Brain Research & Cognitive Sciences Laboratory, Department of Life Sciences, Sophia College for Women, Mumbai, India.**

Regenerating brain of earthworm as a model system to study differentiation of monoaminergic neurons in adult animals

**Ashish Dhir, Pharmacology Division, University Institute of Pharmaceutical Sciences, Panjab University, Chandigarh, India.**

Protective effect of naproxen on Immobilization stress-induced behavioral and biochemical alterations in mice

**Ayushi Jain, Department of Zoology, University College of Science, Mohan Lal Sukhadia University, Udaipur, India.**

Neuroprotective effects of melatonin: *In vitro* study

**Farhana Zahir, Interdisciplinary Brain Research Centre, JN Medical College, AMU, Aligarh, India.**

Implications of neurotoxicity of methyl mercury induced free radical stress and neuroprotection by  $\alpha$ - lipoic acid

**G. Saxena, Department of Zoology, University College of Science, Mohan Lal Sukhadia University, Udaipur, India.**

Effects of *Asparagus racemosus* root extract on experimental neurodegeneration: Quantitative cytological study in swim stress mice model

**G. Singh, *In vitro* Toxicology Laboratory, Industrial Toxicology Research Centre, Lucknow**

Antioxidant potential of *Withania somnifera* in *in vitro* model of cerebral stroke

**Gulrana Khuwaja, Department of Medical Elementology and Toxicology, Jamia Hamdard, New Delhi, India.**

Curcumin has protected the insult of cerebral ischemia

**M. Mohanasundari, Annamalai University, Tamilnadu, India.**

Synergistic effect of deprenyl and *Hypericum hookerianum* on MPTP induced Parkinson's disease in mice

**Madhu Lata Sankhwar, Industrial Toxicology Research Centre, Lucknow, India.**

Neurobehavioral toxicity of monocrotophos in developing rat brain

**Maheep Bhatnagar, M.L.S.University, Udaipur, India.**

Fluoride: A potential neurotoxicant

**M.P. Kashyap, Industrial Toxicology Research Centre, Lucknow, India**

Expression of immediate early response gene proteins in NGF induced differentiating PC-12 cells as early marker for developmental neurotoxicity of monocrotophos



**Mamata Mishra, National Brain Research Center, Manesar, Haryana, India.**

HIV-1 Tat from Clade B and C differentially modulate neurotoxicity and inflammation in human fetal CNS precursor cells

**M. A. Siddiqui, In vitro Toxicology Laboratory, Industrial Toxicology Research Centre, Lucknow, India.**

Effects of rotenone in the expression of dopamine (DA)-D2 in cultured PC-12 cells

**Mohd. Moshahid Khan, Neurotoxicology Laboratory, Department of Medical Elementology & Toxicology, Jamia Hamdard, Hamdard University, New Delhi, India.**

Protective Effect of Pycnogenol<sup>®</sup> against MPTP induced neurotoxicity (a model of Parkinsonism) in swiss albino mice

**Monika Goel, Industrial Toxicology Research Centre, Lucknow, India.**

Neurobehavioral and neurochemical assessment of co-exposure to paraquat and maneb in adult rats

**Muhammad Liaquat Raza, HEJ International Centre for Chemical Sciences, University of Karachi, Karachi, Pakistan**

Natural product against the chemo-convulsant induced seizure.

**Md. Nasrul Hoda, Department of Medical Elementology and Toxicology, Jamia Hamdard, Hamdard University, New Delhi, India.**

Pycnogenol<sup>®</sup> protects against transient focal cerebral ischemia in rats

**Nishi Srivastava, Developmental Toxicology Division, Industrial Toxicology Research Centre, Lucknow, India.**

Functional restoration by basic fibroblast growth factor (bFGF) Administered in Kainic Acid induced Rat Model of Cognitive Dysfunction

**Pallavi Shrivastava, Department of Medical Elementology and Toxicology, Jamia Hamdard, Hamdard University, New Delhi, India.**

Ginger extract protects the neural damages in Parkinson's disease

**Rakesh Shukla, Division of Pharmacology, Central Drug Research Institute, Lucknow, India.**

Protection by acetylcholinesterase inhibitors in neuroinflammation

**Ranita Ganguly, S.N Pradhan Centre for Neurosciences, University of Calcutta, Kolkata, India.**

Protective role of *Moringa oleifera* in experimental model of Alzheimer's disease in rats.

**S. Yadav, Industrial Toxicology Research Centre, Lucknow, India.**

Lead-Ethanol Co-exposure Induced cytogenetic responses in human neuroblastoma cell line

**Shukan Inamdar, Life Science Department, Sophia College, Mumbai, India.**

Effect of Lithium on the morphology and cytoskeletal elements of C6 glioma cell line

**Sukhdev Singh Kamboj, Department of Biochemistry, Basic Medical Science Building, Panjab University, Chandigarh, India**

Mitochondrial oxidative stress and dysfunction in cerebral cortex following chronic carbofuran exposure

**Tauheed Ishrat, Neurotoxicology Laboratory, Department of Medical Elementology & Toxicology, Jamia Hamdard, Hamdard University, New Delhi, India.**

Curcumin ameliorates cognitive performance in streptozotocin model of rats

**Uzma Saeed, Division of Cellular and Molecular Neuroscience, National Brain Research Centre, Manesar, India.**

MPTP mediated Daxx translocation from nucleus and dopaminergic cell loss in mice is prevented by maintenance of thiol redox status

**Anurag Rimzhim, Centre for Behavioral and cognitive sciences, Allahabad University, Allahabad, India**

Cerebral hemispheric asymmetry in semantic categorization: does the nature of stimulus matter?

**B. Khaire, Dept. of Life Sciences, Sophia College, Mumbai, India**

Study of the mosquito *Culex quinquefasciatus*: nervous system architecture, histochemistry and behavior.

**J. Jacob, Brain Research & Cognitive Sciences Laboratory, Department of Life sciences, Sophia College for Women, Mumbai,**  
Behavioral assay to learn about forgetting.

**K. Kushwaha, DOEACC Centre Govt of India, Lucknow, India.**

Computational studies of “inflammation disease a better lead identification by binding free energy calculations”

**Manisha Mishra, Junior Bioinformatics consultant, Lucknow, India.**

Phylogenetic analysis and insilco identification of poly & non structural protein in japanese encephalitis virus with other related groups

**Manisha Yadav, DOEACC Centre govt. of India, Lucknow, India.**

*In silico* structure prediction of alzheimer protein-tyrosine kinase fyn isoform c of *Homo Sapiens* through homology modeling

**Ram Chandra Maurya, Department of Zoology, University of Allahabad, Allahabad, India**

Morphology of the neurons of the dorsomedial cerebral cortex of the lizard, *Hemidactylus Flaviviridis*.

**Raj Kumar, Departments of Radiodiagnosis, Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow, India**

Diffusion tensor imaging in moderate to severe traumatic brain injury

**Richa Tewari, National Brain Research Centre, Manesar, Haryana, India**

Lipid rafts: an organizing platform for signal transduction events in glioblastoma multiforme

**Sarika Kushwaha, School of Studies in Neuroscience, Jiwaji University, Gwalior, India**

Morphological changes in microglia with ageing

**Sonu Bhaskar, Center of Noetic Sciences and Research, BCISR, Sathyabama Institute of Science and Technology, Deemed University, Chennai, India**

An electrophysiological approach to binding problem-study of oscillatory neuronal dynamics

**R. S. Ray, Industrial Toxicology Research Centre, Lucknow, India**

Phototoxicity evaluation of non-steroidal anti-inflammatory drugs: *In vitro* study

1730

**Inauguration**

1930

Reception/Dinner

**(Scientific Convention Centre**

**King George's Medical University, Lucknow)**



DAY - 2

Monday, December 18, 2006

0830 -

Registration / Breakfast

0900 - 0945

B.K. Bachhawat Memorial Oration

**Chairperson**

C. M. Gupta, Lucknow, India

1000 - 1030

**Plenary Lecture III****Chairperson**

E.O. Major, Bethesda, USA

**Speaker**

H. Okamoto, Saitama, Japan

*The molecular mechanisms for the left-right asymmetry of the neural circuits in the zebrafish brain***Auditorium - A**

1040 - 1300

**SYMPOSIUM III****Psychiatric Disorders: A Neurobiological Perspective**

Convener - G.N. Pandey, Chicago, USA

**Chairpersons**

G. N. Pandey, Chicago, USA

B.N. Dhawan, Lucknow, India

**Speakers**

1045

G. N. Pandey, Chicago, USA

*PKC and GSK-3 $\beta$  in mood disorders and suicide: Possible therapeutic targets*

1105

Y. Dwivedi, Chicago, USA

*Altered expression of neurotrophic factors in postmortem brain of suicide subjects: Vulnerability to suicidal behavior*

1125

Anil. K. Agarwal, Lucknow, India

*Clinical picture and management of depression*

- 1145** L. K. Srivastava, Montreal, Canada.  
*Testing neurodevelopmental hypothesis of schizophrenia in animal models*
- 1205** D. K. Lahiri, Indianapolis, USA  
*Current pharmacogenomics & epigenetic studies in neuropsychiatric disorders*
- 1225** **Discussion**

**AND**

**Auditorium – B**

**1040 – 1300**

**SYMPOSIUM IV**

**Molecular Mechanisms of Stroke and Trauma Induced Neuronal Death**

*Convener - R. Vemuganti, Madison, USA*

**Chairpersons**

R. Vemuganti, Madison, USA

Y.K. Gupta, New Delhi, India

**Speakers**

- 1045** J. H. Zhang, Loma Linda, USA  
*Early brain injury after subarachnoid hemorrhage*

- 1105** A.S. Hazell, Montreal, Canada  
*Excitotoxic mechanisms in traumatic brain injury*

- 1125** R. Vemuganti, Madison, USA  
*PPAR $\gamma$  Stimulation is a Novel Anti-inflammatory Neuroprotective strategy for spinal cord injury*

- 1145** M. Chopp, Detroit, USA  
*Remodeling brain after neural injury*

- 1205** R. Raghbir, Lucknow, India  
*Defining molecular targets in cerebral ischemia for optimising neuroprotection*

- 1225** **Discussion**

**1300 – 1400**

**LUNCH**

**Auditorium – A****1400 – 1600****SYMPOSIUM V****NASI\* Platinum Jubilee Symposium on Cell Signaling Pathways in Neurodegeneration, Neuroregeneration and Neuroprotection***\*Sponsored by The National Academy of Sciences, India**Convener - Ashok .K. Agrawal, Lucknow, India***Chairpersons**

A. Nath, Baltimore, USA

Ashok K. Agrawal, Lucknow, India

**Speakers****1405**

H. C. Pant, Bethesda, USA

*Topographic regulation and deregulation of neuronal cytoskeletal protein phosphorylation and neurodegeneration***1425**

I.K. Patro, Gwalior, India

*Microglia and astroglia as sensors and mediators of neurotoxicity and neurodegeneration***1445**

S. B. Singh, Delhi, India

*Hypoxia induce oxidative stress causes time dependent neurodegeneration in rat brain***1505**

S. Daya, Grahamstown, South Africa

*Neurorpotection in Brain Ageing***1525**

Ashok .K. Agrawal, Lucknow, India

*Neural progenitor cell transplantation in rat model of Parkinson's disease: role of neurotrophic factors***1545****Discussion****Discussion with Students of Class XI & XII**

(P.N. Tandon, P.K.Seth, B.N.Dhawan, D. Nag, M.Ito)

**Auditorium – A****1600 – 1800****Oral Session I****Cognition and Aging****Chairpersons**

C. Nath, Lucknow, India

M. K. Thakur, Varanasi, India

**Speakers****1605**

R. Sircar, Glen Oaks, USA

*Adolescence and vulnerability to drug addiction: Influence on learning and memory***1620**

B. S. S. Rao, Bangalore, India

*Amygdalar inactivation ameliorates stress-induced cognitive impairments: Modulation of hippocampal functions***1635**

M. K. Thakur, Varanasi, India

*Expression of Alzheimer's disease genes and its regulation by sex steroids in aging mouse brain***1650**

S. Subramanian, Bangalore, India

*Evaluation of amyloid  $\beta$  as a diagnostic marker for Alzheimer's disease***1705**

S. Prasad, Varanasi, India.

*Age- and Sex-dependent expression of Fmr-1 gene in mouse brain***1720**

S. K. Trigun, Varanasi, India

*Brain metabolism adapts positively against most of the unphysiological challenges***1735**

T. C. Nag, New Delhi, India

*Photoreceptor changes in the aging human retina and their possible consequences upon vision***1750****Discussion****AND****Auditorium – B****1600 – 1800****Oral Session II****Neuronal Injury and Neuroprotection****Chairpersons**

S. Daya, Grahamstown, South Africa

R. Raghbir, Lucknow, India

**Speakers****1605**

A. Gulati, Chicago, USA

*Endothelin in neurological disorders*



- 1620** F. Islam, New Delhi, India  
*Selenium protects cognitive impairment in rats*
- 1635** S. Chakrabarti, Kolkata, India  
*Dopamine induced damage to rat brain mitochondria and the protective action of thiol compounds: Implications in the therapy of Parkinson's disease*
- 1650** G. S. Miranpuri, Madison, USA  
*Spinal cord injury associated neuropathic pain : A rat model*
- 1705** A. S. Ahmad, Baltimore, USA  
*Can PGE<sub>2</sub> EP1 receptor be responsible for the COX-2 related toxicity in ischemic and excitotoxic brain damage?*
- 1720** J. Tang, Loma Linda, USA  
*Effects of apocynin and ethanol on intracerebral hemorrhage-induced brain injury in rats*
- 1735** V. Jadhav, Loma Linda, USA  
*Neuroprotection against blood-brain barrier disruption and cerebral edema after surgically-induced brain injury*
- 1750** **Discussion**
- Auditorium – A**
- 1815 – 1915** **GB MEETING**
- 1930** **Departure for Genesis Club, Kursi Road**
- 2000** **Cultural Programme / DINNER**

DAY -3

Tuesday, December 19, 2006

0830 -

Breakfast

Auditorium - A

0900 - 1130

**SYMPOSIUM VI****Recent Advances in Neuroscience of Alcoholism**

Convener - S.C. Pandey, Chicago, USA

**Chairpersons**

S. C. Pandey, Chicago, USA

D. K. Sarkar, New Brunswick, USA

**Speakers**

0905

M. K. Ticku, San Antonio, USA

*Differential regulation of GABA<sub>A</sub> and NMDA receptors by chronic ethanol treatment: Biochemical and molecular analysis*

0925

S. C. Pandey, Chicago, USA

*Anxiety and alcohol abuse disorders: Perspective from molecular, behavioral, and neurocircuitry approaches*

0945

D. K. Sarkar, New Brunswick, USA

*Mother's alcohol drinking habit may make the baby susceptible to sleep trouble, stress-hyperactivity and immune problem*

1005

D. P. D. Woldbye, Copenhagen, Denmark

*Plastic changes in the neuropeptide Y system during ethanol withdrawal in rats*

1025

B. L. Hungund, New York, USA

*Role of brain's own marijuana, anadamide and cannabinoid cb1 receptors in alcohol use and abuse*

1045

V. Benegal, Bangalore, India

*Deviations in the development of brain morphology and function and the susceptibility to alcoholism*

1105

**Discussion**

AND

**Auditorium – B**

0900 – 1130

**SYMPOSIUM VII****NASI\* Platinum Jubilee Symposium on Cellular and Molecular Mechanisms in Neurotoxicity: Influence of Nanoparticles and Nanomaterials***\*Sponsored by The National Academy of Sciences, India**Conveners - V.K. Khanna, Lucknow, India**A.B. Pant, Lucknow, India***Chairpersons**

P. K. Seth, Lucknow, India

M. Ito, Saitama, Japan

**Speakers**

0905

A. Kanthasamy, Ames, USA.

*A novel oxidative stress signaling in neurotoxic models of Parkinson's disease*

0925

M. Hasan, Lucknow, India

*Aluminum neurotoxicity: Neurochemical, electron microscopic and proton NMR findings*

0945

W. K. Boyes, North Carolina, USA.

*Predicting the risks of neurotoxic volatile organic compounds based on target tissue dose.*

1005

P. Dhar, New Delhi, India

*Early perinatal arsenite-induced morphological alterations observed in developing rat cerebellum*

1025

D. Parmar, Lucknow, India

*Imprinting of the cerebral and hepatic cytochrome P450s and correlation with behavioral effects in offspring prenatally exposed to pesticides*

1045

H. S. Sharma, Uppsala, Sweden

*Influence of nanoparticles on blood-brain and spinal cord barriers in relation to neurotoxicity and neurorepair*

1105

**Discussion**

**Auditorium – A**

1130 – 1330

**Oral Session III  
Neurobiology of Disease****Chairpersons**

H. C. Pant, Bethesda, USA

U. C. Srivastava, Allahabad, India

**Speakers**

1130

S. Wadhwa, New Delhi, India

*Influence of prenatal auditory stimulation on the chick hippocampus*

1145

G. Palit, Lucknow, India

*Evaluation of anti-depressant potential of central histaminergic system*

1200

R. S. Srivastava, Bareilly, India

*Pineal proteins and their anti thermal-stress effects*

1215

S. B. Ray, New Delhi, India

*Nimodipine interacts synergistically with morphine, even 12 hours after systemic administration in rats*

1230

V. Siddharthan, Logan, USA

*Humanized monoclonal antibody hE16, potential candidate for the treatment of West Nile virus encephalitis.*

1245

S. Singh, Bareilly, India

*Possible Involvement of alpha & beta adrenoceptors in LC stimulation induced reduction in REM sleep in rats.*

1300

P. P. Babu, Hyderabad, India

*Possible therapeutic option of bone marrow stromal cells in the middle cerebral artery occluded rat model*

1315

**Discussion****AND**

**Auditorium – B**

1130 – 1330

**Oral Session IV****Clinical Neuroscience****Chairpersons**

A. K. Mahapatra, Lucknow, India

R. Shukla (KGMU), Lucknow, India

**Speakers**

1135

P. G Joshi, Bangalore, India

*Mechanism of selective vulnerability of motor neurons in amyotrophic lateral sclerosis (ALS)*

1150

Atul K. Agarwal, Lucknow, India

*Mechanism of action of antiepileptic drugs*

1205

H. Jaseja, Gwalior, India

*Treating interictal epileptiform discharges in cerebral palsy patients (even without clinical epilepsy) as a strategic target for improving their prognostic outcome*

1220

B. R. Kar, Allahabad, India

*Lateralized neurocognitive impairments in children with mesial temporal sclerosis*

1235

B. C. Kar, Allahabad, India

*Cognitive dysfunction in manic state in bipolar affective disorder*

1250

S. K. Rastogi, Lucknow, India

*Physiological assessment of the peripheral and central nervous system in occupational and environmental health*

1305

**Discussion**

1330 – 1400

**LUNCH**

1400 – 1530

**Poster Session / Tea***(Neuropharmacology and Molecular Neuroscience)***Neuropharmacology****Chairperson**

R. K. Hans, Lucknow, India

**A.K. Srivastava, Department of Neurology, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India.**

Some observation in radiological changes in cerebral venous sinus thrombosis in rat model

**Anchal Gusain, Division of Pharmacology, Central Drug Research Institute, Lucknow**

Calcineurin seems to modulate apoptosis during cerebral ischemia/reperfusion in rats

**Anindita Joardar, Neurobiology division, Indian Institute of Chemical Biology, Kolkata, India.**

Effect of fatty acids isolated from common edible oils on astroglial development and function

**A. Tewari , Department of Anatomy, King George's Medical University Lucknow, India.**

Studies on neurochemical and neuroanatomical changes caused by long-term exposure of nicotine

**Anshul Srivastava, National Brain Research Centre, Manesar, Gurgaon, India.**

Somatosensory Processing is Deficient in Rats with Protein Malnutrition

**Bhupesh Mehta, Department of Biophysics, National Institute of Mental Health and Neurosciences, Bangalore, India.**

Cholesterol depletion enhances the L-type  $Ca^{2+}$  channel activity in hippocampal neurons

**S. Adnan Ali Shah, H. E. J. Research Institute of Chemistry, International Center for Chemical Sciences, University of Karachi, Karachi, Pakistan**

New cholinesterase inhibitors from Microbial Hydroxylation of pregnenolone derivatives

**S. Rajesh, Biomedical Research Lab, Virudhunagar Hindu Nadars' Senthikumara Nadar College, Tamil Nadu, India.**

Cysteine assay based on oxidase-peroxidase activities of copper, zinc superoxide dismutase: EPR spin trapping, optical and fluometric methods

**Deepmala Joshi, Reproductive Biology & Toxicology Laboratory, School of Studies in Zoology, Jiwaji University, Gwalior, India.**

Amelioration of mercury induced stress through combination therapy in rat brain.

**Dilip Verma, Department of Anatomy, All India Institute of Medical Sciences, New Delhi, India.**

Drug Dependence to morphine in rats and the effect of haloperidol, a dopaminergic antagonist, on the occurrence of withdrawal symptoms

**Gunjan Saxena, Division of Pharmacology, Central Drug Research Institute, Lucknow, India**

Comparative study of tacrine and donepezil for their effect on molecular isoforms of acetylcholinesterase in rat brain areas

**Huma Jawed, HEJ, International Center for chemical Sciences, Pharmacology unit, University of Karachi, Pakistan**

*Anti-inflammatory effects of compound -GN.1 in collagen induced arthritic rats*

**Humera Perveen, HEJ, International Center for Chemical Sciences, Pharmacology unit, University of Karachi, Pakistan**

*Anti-epileptogenic effect of AC-31B (essential oil) extracted from Allium cepa in PTZ induced kindling model of seizure in mice*

**Jyoti Parkash, Neurochemistry and Neuroendocrinology Lab, Department of Biotechnology, Guru Nanak Dev University, Amritsar, Punjab, India.**

Neuronal-glia interactions are involved in control of GnRH neurosecretion in the hypothalamus of adult cycling female rats.

**K.P. Singh, Neurobiology Lab., Department of Zoology, University of Allahabad, Allahabad, India.**

Effect of prenatal exposure of Gabapentin on behavioural alterations in rats

**Kalpana Barhwal, Defence Institute of Physiology and Allied Sciences, Delhi, India.**

Normobaric hypoxia induced mitochondria mediated cell death in primary hippocampal culture

**Kanhaiya Sharma, Department of Anatomy, All India Institute of Medical Sciences, New Delhi, India.**

*In vivo* modulation of apoptotic proteins in female rat CA1 with long-term estrogen or tamoxifen therapy

**Kiran Aslam, HEJ, International Center for chemical Sciences, Pharmacology unit, University of Karachi, Pakistan**

Anti-nociceptive activity of unifloral and multifloral honeys produced by *Apis mellifera* and *Apis cerana* bees

**Kiran Kumar Akula, University Institute of Pharmaceutical Sciences, Panjab University, Chandigarh, India.**

Pro-convulsant effect of cefazolin against pentylenetetrazol- or picrotoxin-induced convulsions in mice

**M. Badruzzaman Khan, Neurotoxicology Laboratory, Department of Medical Elementology & Toxicology, Jamia Hamdard, Hamdard University, New Delhi, India.**

Search of a drug for the prevention of cognitive impairments

**Manisha Chugh, National Brain Research Centre, Manesar, Gurgaon, India.**

Somatosensory processing is altered by photothrombotic stroke-like lesions in motor cortex.

**Meenakshi Das, Department of Medical Elementology and Toxicology, Jamia Hamdard, Hamdard University, New Delhi, India.**

Role of homoeopathic medicine in the treatment of Parkinson's disease

**M. Shrivastava, School of Studies in Neuroscience, Jiwaji University, Gwalior, India.**

Age related changes in pain sensitivity are different in male and female rats

**Namratta Manhas, Division of Pharmacology, Central Drug Research Institute, Lucknow, India.**

Altered expression of hsp70 and bax/bcl2 proteins in cerebral ischemia-reperfusion injury

**N. Khurshid, National Brain Research Centre, Manesar, India.**

Localization of opioid receptors in male Zebra Finches

**Nitima Sharma, Dr. Reddy's Biologics Division, Hyderabad, India.**

Effect of stress on the neurobehavioral toxicity of rats



**Preeti Solanki, Defence Institute of Physiology and Allied Sciences, DRDO, Delhi, India**

Effects of piracetam on oxidative damage occurring in primary hippocampal culture exposed to hypoxia

**Rahul Chaudhary, National Brain Research Centre, Manesar, India.**

Protein Deficiency alters sensory behaviour

**Mir Sajad, Department of Medical Elementology and Toxicology, Jamia Hamdard University, New Delhi, India.**

Kainate CA3 region model of epilepsy displays spatial memory and reverse learning deficits; neurobehavioural and neurochemical assessment.

**S. Kumar, Department of Neurology, Sanjay Gandhi PGIMS, Lucknow, India.**

Sequential study of CSF catecholamines and its metabolites and correlation of radiological findings in Japanese encephalitis.

**S. K. Bhattamisra, Department of Pharmaceutics, Institute of Technology, Banaras Hindu University, Varanasi, India**

Anti-amnestic and receptor binding studies of *Marsilea minuta* Linn

**Panthee S., Department of Pharmacy, Tribhuvan University, Kathmandu, Nepal**

Analgesic, anti-inflammatory, skeletal muscle relaxant and cns depressant activities of methanol extract of *rhododendron campanulatum*

**Swati Ghosh, Biochem & Molec Biol Lab, Dept of Zoology, Banaras Hindu University, Varanasi, India.**

Interaction of estrogen receptor alpha ligand binding domain with nuclear proteins of aging mouse brain

**V.Sejian, Neurophysiology Laboratory, Division of physiology and Climatology, Indian Veterinary Research Institute, India.**

Modulating effects of glucocorticoids on pineal functions to ameliorate thermal-stress in goats (*Capra hircus*)

**Varsha Agarwal, National Brain Research Centre, Manesar, India.**

Localization and expression study on human brain cytochrome P4504F11

**Zia Ud Din Darokhan, National Brain Research Centre, Manesar, India.**

Effects of unilateral injuries to somatosensory cortex on receptive field properties in contralateral hemisphere.

**Molecular  
Neuroscience**

**Aditi Narsale, Sophia College, Mumbai, India**

Detection of single nucleotide polymorphism in the blood samples of leprosy patients in the Indian population.

**Amit Mishra, Cellular and Molecular Neuroscience Laboratory, National Brain Research Centre, Manesar, India.**

Angelman ubiquitin ligase E6-AP promotes degradation of tumor suppressor p53 by proteasome in the neuronal cells

**Amit R Nayak, Biochemistry Research Laboratory, Central India Institute of Medical Sciences, Nagpur, India.**

Secretory Factors of human neuroblastoma (IMR-32) and human glioblastoma (U87MG) cell lines induce neurite outgrowths in PC12 cells.

**Amit Prasad, Department of Microbiology, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India.**

Identification of immuno- dominant fractions of *Taenia solium* cyst fluid and its cytokine response

**Aneek Das Bhowmick, Manovikas Biomedical Research and Diagnostic Centre, Kolkata, India.**

Dopamine Receptor D4 Gene Polymorphism in Association with Down Syndrome.

**Gautami Das, S. N. Pradhan Centre for Neurosciences, University of Calcutta, Kolkata, India.**

*Parkin* mutations in Indian Parkinson's Disease patients

**Madhu Singh, Industrial Toxicology Research Centre, Lucknow, India.**

Association of genetic polymorphisms in environment responsive genes and susceptibility to Parkinson's disease

**Manoj Kumar Mishra, National Brain Research Centre, Manesar, India.**

Astrocyte activation by Japanese encephalitis virus triggers enhanced expression of glutamate transporters, acute phase protein and neurotrophic factors

**Mansoor Ali Khan, Department of Neurophysiology, National Institute of Mental Health and Neuro Sciences, Bangalore, India.**

Differential expression of neurotrophic factors in the regenerating microenvironment of olfactory bulb.

**Prashant K. Modi, Molecular Biology Laboratory, Department of Zoology, Banaras Hindu University, Varanasi, India.**

Age-related alterations in the expression of glutamine synthetase gene involved in excitatory neurotransmission in the brain of mice

**Richa Tewari, National Brain Research Centre, Manesar, India**

Lipid rafts: an organizing platform for signal transduction events in glioblastoma multiforme

**R. Srivastava, Department of Neurology, Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India.**

Association of MTHFR C677T polymorphism with stroke.

**Siddhartha Roy, Department of Human Genetics, National Institute of Mental Health And Neuro Sciences, Bangalore, India.**

An insight into the human ASPM gene, a major determinant of brain size

## **Auditorium – A**

**1535 – 1615**

### **Special Lectures**

#### **Chairpersons**

V. Kumar, New Delhi, India

K. K. Srivastava, New Delhi, India

#### **Speakers**

P. Tandon, Bethesda, USA

*India and USA: International Collaborations*

**1535**

**1550**

M. Kumar, New Delhi, India

*International Collaboration*

1605

**Discussion****Award Session**

1620 – 1750

**Dr. D.M. Kar Prize****Chairpersons**

I. K. Patro, Gwalior, India

R. D. Mehra, New Delhi, India

**Speakers**

M. Rani, Varanasi, India.

*Age-related changes in the expression of dopamine D2 receptor in the brain of mouse*

P. Maiti, Delhi, India.

*Chronic hypobaric hypoxia damages cortex, hippocampus and striatum of rat brain*

V. Bhagya, Bangalore, India.

*Chronic Escitalopram Treatment Ameliorates the Cognitive Impairment in an Animal Model of Endogenous Depression*

V. Kapoor, Manesar, India

*Does covert inhibition facilitate the dynamic control of decision making?*

B. Sen, Kolkata, India.

*Analysis of HOXA1 and HOXB1 polymorphisms in the Indian population – An association study with autism*

Mohd. Haris, Lucknow, India.

*Role of Perfusion magnetic resonance imaging in differentiation of Infective from neoplastic brain lesions*

S. K. Hota, Delhi, India.

*NMDA upregulation at the synapse causes excitotoxicity on prolonged exposure to hypobaric hypoxia*

V. Swarup, Manesar, India.

*Japanese Encephalitis Virus (JEV) infection induces tumor necrosis factor receptor-1 mediated neuronal apoptosis*

S. Sharma, New Delhi, India.

*Morphometry of human cochlear nerve*

1800 – 1900

**Tulsabai Somani Educational Trust Award****Chairpersons**

M. Bhatnagar, Udaipur, India

A. A. Mahdi, Lucknow, India

**Speakers**

A. Prakash, Chandigarh, India

*Study to evaluate the role of propofol in altering pentylenetetrazol induced seizure threshold in rats*

J. Veena, Bangalore, India.

*The recruitment of hippocampal neurogenesis in the reversal of stress-induced cognitive deficits by administration of oxotremorine, bromocriptine or exposure to enriched environment*

M. Margaret, Lucknow, India.

*Macrosphere induced permanent MCAO rat stroke model – study on a 1.5 T Magnetic Resonance clinical scanner and its histopathological correlation*

R. Sharma, Lucknow, India.

*Focal cerebral ischemia-induced altered expression of neurotrophins and their receptors*

D. Biswas, Kolkata, India.

*The role of Nigella Sativa in the management of amygdaloid kindled seizure*

A. Johri, Lucknow, India

*Imprinted over expression of cerebral and hepatic cytochrome P450s and neurobehavioral toxicity in the offspring prenatally exposed to deltamethrin*

1910

**Departure for ITRC**

1930

**Cultural Programme – Contributory /****DINNER****(ITRC, Lucknow)**

DAY -4

Wednesday, December 20, 2006

0830 -

Breakfast

0900 – 1000

**NASI Young Scientist Colloquium****Chairpersons**

P.P. Babu, Hyderabad, India

T. S. Roy, New Delhi, India

**Speakers**

D. C. Joshi, Bangalore, India.

*AMPA receptor mediates excitotoxic injury to motor neurons via voltage gated  $Ca^{2+}$  channels*

S. Tandon, Manesar, India

*Reorganization of the motor cortex and effects on sensorimotor abilities following dorsal spinal cord injuries*

K. Saxena, Gwalior, India.

*FK506 enhances survival of neurons following peripheral nerve injury by immunosuppression*

M. Das, Kolkata, India.

*Risk of Attention Deficit Hyperactivity Disorder (ADHD) conferred by MAOA gene polymorphism.*

K. Nath, Lucknow, India

*Detection of inflammatory response in meningitis patients associated with Brain Abscess by Diffusion Tensor Imaging*

1000 – 1200

**SYMPOSIUM VIII****Advances in Pathogenesis and Management of Parkinson's Disease**

Convener - R. Shukla (KGMU), Lucknow, India

**Chairpersons**

M. Behari, New Delhi, India

D. Nag, Lucknow, India

**Speakers**

**1005** U. Muthane, Bangalore, India  
*Pathogenesis of Parkinson's disease*

**1025** R. Shukla (KGMU), Lucknow, India  
*Management of early Parkinson's disease*

**1045** R. Borgohain, Hyderabad, India  
*Management of late Parkinson's disease*

**1105** V. P. Singh, New Delhi, India  
*Surgery in Parkinson's disease*

**1125** **Discussion**

**1200 – 1330**

**SYMPOSIUM IX****Computational Neuroscience and Neuroimaging**

*Convener - P.K. Roy, Manesar, India*

**Chairpersons**

P. K. Roy, Manesar, India

N. B. Joshi, Bangalore, India

**Speakers**

**1205** R K Gupta, Lucknow, India  
*The potential utility of diffusion tensor Imaging in neuroscience*

**1220** P. K. Roy, Manesar, India  
*Imaging diagnosis of neurodegenerative disorders using a stochastic approach of fractal morphometry*

**1235** N. C. Singh, Manesar, India  
*Temporal processing in children - new insights from a computational approach*

**1250** P Kalra, Kanpur, India  
*Brain Signal Analysis: A Statistical Approach*

**1305** N. Srinivasan, Allahabad, India  
*Temporal dynamics of attention: EEG approaches*

**1320** **Discussion**

**1330 – 1400** **LUNCH**

1400 - 1600

**Oral Session V****Mechanism of Action of Chemicals, Drugs and Neuromodulation****Chairpersons**

S. Wadhwa, New Delhi, India

R. K. Singh, Lucknow, India

**Speakers**

1405

R. D. Mehra, New Delhi, India

*Hippocampus: An estrogen sensitive area of brain*

1420

N. Patro, Gwalior, India

*Glia in developmental neurotoxicity of deltamethrin*

1435

K. K. Srivastava, Delhi, India

*To enhance the performance and efficiency*

1450

P. Pal Singh, S.A.S. Nagar, India

*Neuroimmunomodulation, morphine and protozoan parasitic infections: an overview*

1505

S. U. Simjee, Karachi, Pakistan

*Anticonvulsant and anti-epileptogenic effect of AC-31B (essential oil) extracted from *Allium cepa**

1520

S. Srivastava, Louisville, USA

*Oxidative stress and vascular dysfunctions*

1535

U. B. Pandey, Philadelphia, USA

*Impairment of the proteasome and induction of autophagy in neurodegenerative disease*

1550

**Discussion**

1615

**VALEDICTORY SESSION**