NEUROCON – 2015

INSTITUTE OF POST GRADUATE

MEDICAL EDUCATION & RESEARCH

Government of West Bengal

DEPARTMENT OF BIOCHEMISTRY

244 A.J.C Bose Road, Kolkata - 700020

Prof. Sasanka Chakrabarti

Organizing Secretary

Neurocon 2015

Report on Proceedings of the conference

- Neurocon 2015, an International Symposium on **"Development, Degeneration and Regeneration of Neurons : Neurochemistry to Clinical Neurology", 7 - 10 Jan., 2015,** was organized jointly by the Dept. of Biochemistry, IPGMER and Dept. of Biochemistry, IIMSAR, Haldia with technical advice from the Cell Biology and Physiology Division. IICB, Kolkata.
- Neurocon 2015, the fourth Neurocon meeting after its inception in 2009, had a very distinctive format that created opportunity for young research scholars and budding neuroscientists to interact comprehensively with the stalwarts in this field. This conference acts as the perfect bridge between different generations of neuroscientists both from within the country and abroad.
- The Symposium was inaugurated on the evening of 7th January, 2015 by two eminent Indian neuroscientists Dr. Prahlad K. Seth and Prof. Prem Prakash Sood. The inaugural session was followed by a general discussion by Dr. Akshay Anand (PGI,Chandigarh), Dr. Rita Banerjee (DST, Govt. of India) and Prof. Shail K Sharma (Emeritus Professor) that critically reviewed the **"Current Scenario of Neuroscience Research in India".**.
- The next session was based on the **"Beneficial Role of Tea in Neurological Disorders"** where the speakers, Dr. Sandip K. Bandyopadhyay, Dr. T Manivasagam, Dr. K P Mohanakumar, Dr. Amitava Chatterjee, highlighted the neuroprotective role of black tea through attenuation of oxidative stress, inflammation and apoptosis. The session was followed by the welcome dinner. The major scientific sessions started on 8 Jan., 2015 at 9 AM.
- Total hours of Scientific Discussions: 23 hours and 45 minutes including post-dinner round table meetings (Details of sessions and the speakers attached).
- **Original works** were presented by Invited Speakers followed by **Panel Discussion Session** comprising of five pre-selected students. For each panel discussion session,

one student was awarded for asking the most incisive question. **Review Sessions** presented by invited speakers were followed by **Rapid Fire Sessions** conducted by Senior Scientists.

- **Young Post Doctoral Students** presented their work in the **"Young Investigators' Session".**
- Young Ph.D students also presented their work in the competitive **"Short Oral Presentation Session"** and three prizes were awarded.
- A new format of poster: e-poster session was introduced where young neuroscientists from India and abroad presented their work to the judges as well as the general audience on big LED screens. Six posters were shortlisted to be presented on the next day (9 Jan., 2015) in front of another set of judges. The poster session was competitive and two prizes were awarded.
- Another innovative feature of this conference is the **'Post-dinner Round Table Meetings'** on 8 and 9 January where in each table 4 -5 students interacted in a non-formal manner with 2 senior scientists discussing scientific technicalities as also broader problems and prospects of neurobiology research. Though the schedule of the programme was a bit hectic, there was no drop of energy level in these round table meetings even well past 11 P.M.
- **"ISN-Young Neurochemist Award"** was provided as travel fellowship to five Overseas Ph.D/Post- Doctoral students, 17 Indian Ph.D/M.D students and one young Assistant Professor from Annamalai University, India.
- The symposium covered the state-of the-art research primarily on brain aging, Alzheimer's disease and Parkinson's disease, but interesting presentations were also made on several other topics like autism, alcohol addiction, ischemic stroke, brain cancer etc. The methodology used by the speakers encompassed robust classical biochemistry, rigorous electrophysiology, tricky molecular biology, sophisticated cell biology and meticulous epidemiology.
- The meeting provided opportunities for collaborative work not only in terms of exchange of ideas and expertise, but also more extensive and formal collaborations.
- The conference was concluded by the valedictory session where all eminent scientists spoke of their immense satisfaction on this scientific fest of neuroscience, but some constructive suggestions were also provided by some scientists to improve further in future Neurocon meetings.

Inaugural Programme of "Neurocon 2015"

4:00 PM-5:30 PM	**Registration**
5:30 PM-5:35 PM	**Inaugural Song**
5:35 PM-5:40 PM	**Welcome Speech by Prof. Sasanka Chakrabarti, Organising Secretary, "Neurocon 2015".**
5:40 PM-5:45 PM	**Lighting of the Lamp and inauguration of symposium by Prof. Prahlad K. Seth.**
5:45 PM-5:50 PM	**Speech by Dr. Santosh Raman, Medical Director, IIMSAR & Dr. B.C. Roy Hospital, Haldia**
5:50 PM-5:55 PM	**Speech by the Chief Guest, Prof. Pradip K. Mitra, Director, IPGME&R , Kolkata**
5:55 PM-6:00 PM	**Speech by the "Guest of Honour", Prof. Dhrubajyoti Chattopadhyay, Pro-Vice Chancellor, University of Calcutta, Kolkata**
6:00 PM-6:05PM	**Speech by Shri Ashis Lahiri, Secretary, ICARE, Haldia**
6:05 PM-6:25 PM	**Felicitation Ceremony**
6:25 PM-6:30 PM	**Vote of thanks by Dr. K.P. Mohanakumar, Jt. Organising Secretary, "Neurocon 2015"**

6:30 PM-6:45PM	**Tea**
6:45 PM-7:30 PM General Discussion on Neurocon and Neuroscience in India 15*3=45 min	**Speakers :** **Dr. Akshay Anand** **Dr. Rita Banerjee** **Prof. Shail K. Sharma**
7:30PM-8:30 PM 15*4=60 min	**Special session on Neurological Disorders : Beneficial Effects of Tea** **Speakers :** **Dr. Sandip K. Bandyopadhyay :** Neuroprotectant from Tea (*Camellia Sinensis* (L.) O. Kuntze) having Gastro-protective Property. **Dr. T. Manivasagam :** Therapeutic Attenuation of Oxidative Stress, Neuroinflammation and Apoptosis by Black Tea Theaflavin in Chronic MPTP/Probenecid Model of Parkinson's Disease **Dr. K. P. Mohanakumar :** Oolong, Black or Green, Tea Is Good For Parkinson's Disease: True? **Dr. Amitava Chatterjee :** Effect of Tea Polyphenols on Cancer
8:30 PM ONWARDS ..... "WELCOME DINNER"	

DAY II 08. 01. 2015

Time	Details	Chairperson
09:00 AM-10:35 AM 4 Speakers * 20 mins = 80 mins 15 mins	**SESSION I** Original work presentation : **Parkinson's Disease: Mechanisms & Treatment** **Dr. Lisa Chakrabarti** : Haemoglobins are Located in the Mitochondrial Inter-membrane Space and their Distribution Changes with Age and in Parkinson's Disease. **Dr. Shashi V. Kalivendi** : Enhanced Aggregation Propensity of 112-synuclein in the Pathophysiology of Parkinson's Disease : Plausible Role in Lewy Body Diseases. **Dr. Jharna Ray** : Genetics of Parkinson's Disease: Indian Scenario **Dr. Surya P. Singh** : Neuroprotection and Alleviation of Parkinsonian Phenotypes by Inhibiting Apoptotic Pathways in Dopaminergic Neurons by Ayurvedic Herbs. **Panel Discussion**	**Chairpersons:** Prof. Roberto Cappai Prof. Pradip K. Mitra
10:35 AM-10:50 AM	**TEA**	
10:50 AM-12:05 PM 3 Speakers * 20 mins = 60 mins 15 mins	**SESSION II** Original work presentation : **Pathophysioloy of Glia** **Dr. Phalguni A. Alladi** : Does Aging Affect the Glia? Insights from the Human Substantia Nigra Pars Compacta. **Dr. Anirban Basu** : IL-1β Mediated Inflammatory Response in Microglia. **Dr. Sumantra Das** : Thyroidal Influence on Differentiation of Astrocytes: Transcriptional Regulation of β-arrestin-1 Induce Internalization of β_2-adrenergic Receptors. **Panel Discussion**	**Chairpersons** Dr. Rita Banerjee Dr. Isaac G. Onyango

12:05 PM – 12:50 PM 30 mins 15 min	**Session III** Review Session : **Prof. M.S. Kanungo Memorial Lecture** **Prof. Debomoy Lahiri : HALDIA: H**astening **A**lzheimer's **D**rug **I**nnovative **A**pproach. **Rapid Fire** Prof. Roberto Cappai Prof. Sasanka Chakrabarti Prof. Ratna Sirkar	**Chairperson** Prof. Mahendra. K. Thakur
12:50 PM-01:55 PM	**LUNCH**	
01:55 PM-02:40 PM 30 mins 15 min	**Session IV** Review Session : **Prof. Mahdi Hasan Memorial Lecture** **Prof. Lakshmi A. Devi** : Novel Functions for New Neuropeptides: from Body Weight Regulation to Neurodegenerative Diseases. **Rapid Fire** Dr. Akshay Anand Prof. Mahendra K. Thakur Dr. B. S. S. Rao	**Chairperson** Prof. Prahlad K. Seth
02:40 PM-04:15 PM 4 Speakers * 20 mins = 80 mins 15 mins	**Session V** Original work presentation : **Cognition, dementia and Alzheimer's disease** **Dr. Shyamal K. Das** : Cognitive Dysfunction and Depression in Stroke Survivors: A Community-based Study from Kolkata, India. **Dr. B. S. S. Rao** : Novel Therapeutic Strategies to Treat Depression-induced Cognitive Deficits. **Dr. Shiv K. Sharma** : Protection Against Amyloid Beta-Induced Neurotoxicity. **Prof. Mahendra. K. Thakur** : Novel Function of Plasticity Protease Neuropsin in Amnesic and Aging Mouse Brain. **Panel Discussion**	**Chairperson** Dr. Martin Hallbeck Prof. Ratna Sircar
04:15-05:25 PM	**Session VI : "E-Poster" + Tea**	

05:25-07:00 PM 4 Speakers * 20 mins = 80 mins 15 mins	**Session VII** Original work presentation : **Miscellaneous** **Dr. Akshay Anand** : Bone Marrow Derived Lin-Ve Stem Cells Have Potential to Rescue NMDA Induced Retinal Injury in Mice. **Dr. Mousumi Mutsuddi** : Suppression of Non-coding Spinocerebellar Ataxia 8 Associated Neurodegeneration by Spoonbill is Mediated by its RNA Binding Domain in *Drosophila.* **Prof. Surendra. K. Trigun :** Characterizing NMDAR Activation Dependent Down Stream Targets as Therapeutic Options Against a Neuroexcitotoxic Brain Disorder. **Dr. Rajamma Usha :** Genetic Association Analysis of Monoamine Oxidase A (MAOA) Markers Reveal Sexual Dimorphic Effect in Autism Spectrum Disorders. **Panel Discussion**	**Chairperson** Dr. B. S S Rao Dr**.** Barbara Viviani
07:00-07:45 PM 30 min 15 mins	**Session VIII** Original Work Presentation : **Prof. J. J. Ghosh Memorial Lecture** **Prof. Roberto Cappai :** Delineating the Neuroprotective Role of the Amyloid Precursor Protein in Brain Injury. **Rapid Fire** Dr. Subhas C. Biswas Prof. Debomoy K. Lahiri Dr. Jianhua Zhang	**Chairperson** Dr. Sumantra Das
07:45-08:45 PM	**Dinner**	
08.45 - 09.45 PM	**Post Dinner Round Table Discussion**	

09:00 AM-9:45 AM 30 min 15 min	**Session IX** Review : **Prof. D. P. Burma Memorial Lecture** **Prof. Georg Reiser :** Lipids in Neurodegeneration and Neuroprotection. **Rapid Fire** Dr. Isaac G. Onyango Dr. K. P. Mohanakumar Dr. Rajamma Usha	**Chairperson** Prof. Debomoy Lahiri
09:45 AM-11:00 AM 15 min * 4 = 60 min PD : 15 min	**Session X** Original work presentation : **Young Investigators' Session** **Dr. Ajay Kale :** Biomimetic Microenvironment Based Regenerative Strategy to Regulate Human Neural Progenitor Cells Transplantation Mediated Restoration of Sensory Auditory Function. **Dr. Amal Chandra Mondal :** Effects of Chronic Foot Shocks on Nerve Growth Factor Content in Rat Brain. **Dr. Supriti Samanta Ray :** Pre-clinical Testing of Calpain Inhibitors in Experimental Parkinsonism. **Dr. Maitrayee Sinha :** Role of Exosomes in Neuron to Neuron Transfer of Amyloid Beta Protein: Implications in The Pathogenesis of Alzheimer's Disease. **Panel Discussion**	**Chairpersons** Dr. Lisa Chakrabarti Dr. Jianhua Zhang
11:00 AM-12:35 PM 20 min * 4 = 80 min 15 min	**Session XI** Original work presentation : **Molecular Pathogenesis Of Alzheimer's Disease (AD)** **Dr. Subhas C. Biswas :** FOXO Transcription Factors : Key Regulators of Neurodegeneration in Alzheimer's Disease. **Dr. Martin Hallbeck :** Modeling Neuron-to-neuron Transmission of Neurodegenerative Diseases **Prof. Walter E. Müller :** A Mitochondrial Role of SV2A Protein In Alzheimer's Disease : Studies With Levetiracetam. **Dr. Isaac G. Onyango :** Mitochondrial Dysfunction In Alzheimer's Disease And Nascent Bioenergetic Therapies. **Panel Discussion**	**Chairpersons** Dr. Per E. Andren Prof. Mrinal. K. Poddar
12:35PM-1:50 PM	**Lunch**	

Time	Details	Chairperson
01:50 PM-03:50 PM (8+2) * 12 = 120 mins	**SESSION XII** Original work presentation : **Young Scientists' session** **Nilufer Ali :** Prohibitin Down Regulation Enhances the Loss of Mitochondrial Integrity and Augments Cell Death in Parkinson's Disease Cybrids. **Priyanjalee Banerjee :** Iron Induced Amyloid Beta Toxicity in Aged Rat Brain is Attenuated by Deferasirox : Therapeutic Implications in Alzheimer's Disease. **Soumyabrata Banerjee :** Carnosine Restores Aging-induced Change in Brain Regional and Blood Platelet Mitochondrial Monoamine Oxidase-A Activity : A Green Approach. **Gargi Chatterjee Basu :** Insulin Effects on Amyloid Beta Peptide Metabolism in SHSY5Y Cells Involve Reactive Oxygen Species and NF-κβ **Moitreyi Das :** Differential Effect of Omega 3 Fatty Acid on Normal and Tumorigenic Cells **Debashis Dutta :** Proteins Differentially Expressed in Substantia Nigra from Ventral Tegmental Area have Direct Implication in the Death Of Dopaminergic Neurons in Parkinson's Disease. **Oliver G. Heygate** : The Purkinje Cell Degeneration Mouse And Measuring The Effect Of Neurodegeneration On Metabolism And Behaviour. **Bhaskar Saha :** p53 Signalling And Autophagy : promising Therapeutic Targets For Cancer Treatment. **Priyankar Sanphui :** Role And Regulation Of Cell Cycle Regulatory Protein CDC25A In Experimental Models Of Alzheimer's Disease. **Vijay K. Sonkar :** Amyloid Beta Peptide Activates Platelets Through RhoA. **Pranay Srivastav :** Protective Efficacy Of Curcumin In Arsenic Induced Dysfunctions In Brain Dopaminergic Signaling In Rats. **Satya Surabhi :** Negative Regulation Of Notch Signalling By An Evolutionary Conserved Dead Box RNA Helicase, Maheshvara In *Drosophila Melanogaster.*	Dr. K.P. Mohanakumar Dr. Akshay Anand

03:50 PM-4:35 PM 30 min 15 min	**Session XIII** Review : **Prof. Rajshankar Memorial Lecture** **Dr. Federico Sesti :** Oxidation Of K^+ Channels In Aging And Neurodegeneration. **Rapid fire** Dr. Martin Hallbeck Dr. Sumantra Das Prof. Walter. E. Müller	**Chairperson** Prof. Sasanka Chakrabarti
4:35 PM-5:35 PM	**Final Round Poster and Tea**	
5:35 PM-7:10 PM 20 min * 4 = 80 min 15 min	**Session XIV** Original work presentation : **Miscellaneous** **Dr. Per E. Andren :** Direct Targeted Quantitative Molecular Imaging of Neurotransmitters in Brain Tissue Sections. **Prof. B. D. Banerjee :** Neurobehavioural and Immunological Alterations with Reference to Environmental Stimulations **Dr. Barbara Viviani :** How Neurons Adapt to Sense Inflammation : Focus on IL-1 Signaling **Dr. Jianhua Zhang :** NRBF2 Regulates Autophagic Flux and Plays an Important Role in Neuronal Survival **Panel Discussion**	**Chairpersons** Prof. Georg Reiser Prof. Subrata Chattopadhyay
7:10 PM Onwards	**DINNER**	

DAY IV 10. 01. 2015

Time	Details	Chairprson
09:00AM-10:15 AM 20 min * 3 = 60 min 15 min	**SESSION XV** Original Work Presentation : **Miscellaneous** **Prof. Sasanka Chakrabarti :** NLT, a combination of N-acetylcysteine, α-Lipoic acid and α-Tocopherol, prevents multiple age-related changes in rat brain : Implications in Alzheimer's disease therapy. **Prof. Subrata Chattopadhyay :** A Resveratrol Analog as the Achilles Heel Against Neuroblastoma. **Prof. Debomoy K. Lahiri** : A miR-acle hAPPens At 346: Neurobiological Implications For Alzheimer's Disease. **Panel Discussion**	**Chairperson:** Prof. Walter E. Müller Prof. Shail K.Sharma
10:15 AM-10:30 AM	**Tea**	
10:30 AM-11:45 AM 20 min * 3 = 60 min 15 min	**SESSION XVI** Original Work Presentation : **Miscellaneous** **Dr. Atanu Biswas :** Enigma of Young Onset Dementia. **Dr. K. P. Mohanakumar :** Diverse Therapeutic Potential of Melatonin : A Close Look into its Modes of Action Neurodegenerative Diseases, PD And HD. **Prof. Ratna Sircar** : Alcohol-induced cognitive dysfunction during adolescence: behavioral phenotypes to molecular correlates. **Panel Discussion**	**Chairpersons:** Prof. B.D. Banerjee Dr. Rajamma. Usha
11:45 AM-12:45 PM	**Valedictory Session**	
12:45 PM-02:00 PM	**Lunch**	

ISN – Young Neurochemist Awards

International students	Indian students
Mrs. Carola Stockburger, Goethe University, Germany **Mr. Oliver Greville Heygate, University of Nottingham, United Kingdom** **Dr. Mariaserena Boraso, University of Milan, Italy** **Dr. Ajay Kale, Linkoping University, Sweden** **Dr. Maitreyee Sinha, Linkoping University, Sweden.**	**Mr. Sharath Chandra, Govt. Science College, Karnataka** **Dr. Sankha Subhra Chakrabarti, BHU, Varanasi.** **Mr. Yogesh Kumar Dhuriya, IITR, Lucknow, U.P.** **Mr. Shashank Gupta, BHU, Varanasi, U.P.** **Dr. Sorabh Gupta, B.R.D. Medical College, Gorakhpur, U.P.** **Dr. Upinder Kaur, BHU, Varanasi** **Dr. T. Manivasagam, Annamalai University, Tamil Nadu** **Ms. Anamika Misra, BHU, Varanasi, U.P.** **Ms. Suman Misra, BHU, Varanasi, U.P.** **Mrs. Papia Mondal, BHU, Varanasi, U.P.** **Mr. Aijaz Ahmad Naik, Jiwaji University, Gwalior, M.P.** **Mr. Bhaskar Saha, Bhabha Atomic Research Centre (BARC), Mumbai, Maharashtra** **Ms. Anuradha Sharma, Guru Nanak Dev University, Amritsar, Punjab** **Mr. Alok Kumar Singh, KGMU, Lucknow, U.P.** **Mr. Vijay Kumar Sonkar,BHU, Varanasi, U.P.** **Mr. Pranay Srivastava, IITR, Lucknow, U.P.** **Ms. Satya Surabhi, BHU,** **Varanasi, U.P.** **Mr. Dinesh Tripathi, King Georges' Medical University, Lucknow, U.P.**

FINANCIAL REPORT

Total grant received from ISN: 8000 USD

Grant pending from ISN: 2000 USD

Grant utilized:

1. **Travel support to International Students attending Neurocon :**

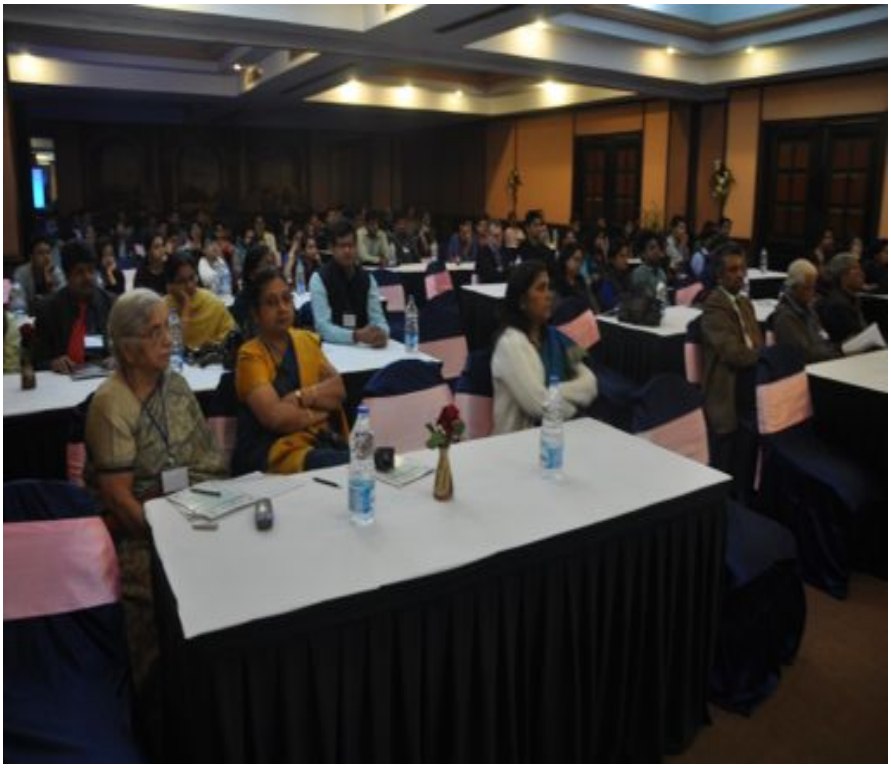
3 × 1000 USD	=	3000.00 USD	(1,84,170.00 INR)
1 × 857.82 USD	=	857.82 USD	(52,662.00 INR)
1 × 944.32 USD	=	944.32 USD	(57,971.00 INR)

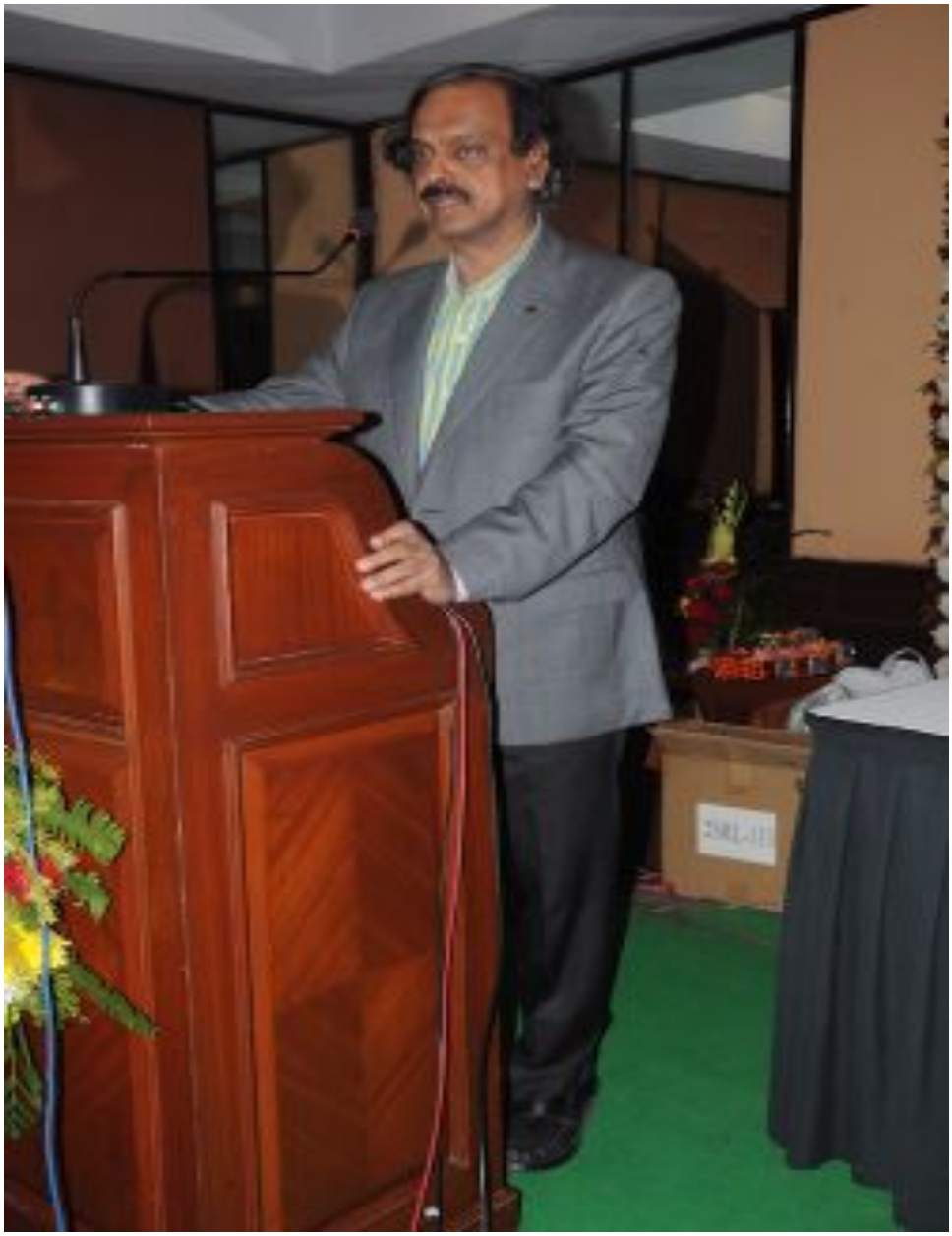
2. **Travel support to Indian students attending Neurocon :**

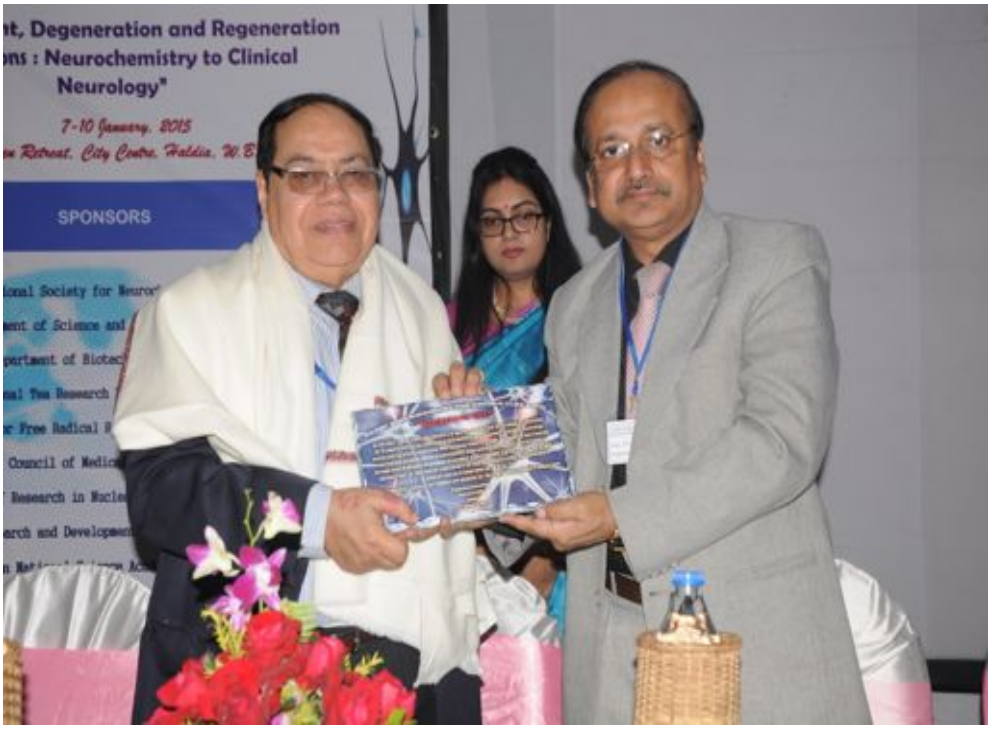
15 × 40.72 USD =	610.64 USD	(37,500.00 INR)
1 × 261.88 USD =	261.88 USD	(16,077.00 INR)
2 × 211.76 USD =	423.52 USD	(26,000.00 INR)

3. **Partial payment of :**

1. **Printing and publication** :	520.19 USD	(31,935.00 INR)
2. **Audio visual :**	1508.38 USD	(92,600.00 INR)
3. **Registration kit :**	244.34 USD	(15,000.00 INR)
4. **Conference venue :**	1628.92 USD	(1,00,000.00 INR)
TOTAL :	**10,000.00 USD**	**(6,13,900.00 INR)**



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