Centre for Brain Research

An autonomous Centre of the Indian Institute of Science
Bangalore – 560 012

Center to understand brain functions in health and disease.
SYNERGISTIC AND COLLABORATIVE APPROACH TO NEUROSCIENCE

Volume 1/Issue 1
QUARTELY NEWSLETTER

MANDATE OF THE CENTRE:
To undertake, aid, develop, guide and coordinate research in basic and clinical neurosciences with special reference to disorders affecting the brain from development of ageing.

FOCUS AREAS
Understanding how we can preserve cognitive functions during aging and how can we reduce the burden of dementia through early diagnosis and innovative interventions
Developing neuromorphic computing and algorithms based on understanding brain function

GENESIS: The creation of the Centre for Brain Research was made possible by the vision and generosity of the trust (Pratiksha Trust) formed by Infosys executive vice-chairman Kris Gopalakrishnan and his wife. The Pratiksha Trust offered a grant spread over 10 years for the establishment and functioning of the Centre, which receives support from the Centre for Neuroscience and other research facilities at Indian Institute of Science, Bangalore and collaborates with various research hospitals across the city. Pratiksha Trust is a charitable trust established by Kris Gopalakrishnan and Sudha Gopalakrishnan. Pratiksha Trust supports education, research, innovation, and entrepreneurship initiatives targeted towards the poor and focuses on creating systemic changes in society.

The center is an autonomous society within Indian Institute of Science, Bangalore. Centre for Brain Research has a Scientific Advisory Board and a Board of Management, drawing inputs from the best minds in India and abroad.

Centre for Brain Research Society is a registered society under Karnataka Societies registration Act 1960. Current members of this Society are:
Prof. Anurag Kumar, Director, IISc (ex-officio): President
Dr. P. Rama Rao, Chairman, Governing Council, IISc (ex-officio)
Mr. K. Mukherjee, Chief Secretary, Government of Karnataka (ex-officio)
Mr. L. V. Nagarajan, Additional Chief Secretary, Government of Karnataka (ex-officio)
Mr. I. S. N. Prasad, Principal Secretary (Finance), Government of Karnataka (ex-officio)
Mr. S. Krishna, Secretary, Dept. of IT & BT, Government of Karnataka (ex-officio)
Dr. Ramesh Babu ;Dr. Girija Ramesh Babu ;Prof. N. Balakrishnan ;Dr. P. Satish Chandra ;
Mr. S. Goplakrishnan ;Mrs. Sudha Goplakrishnan ;Dr. K. Kasturirangan ;Prof. H. P. Khincha
Dr. P. Kondaiah ;Mr. D. Krishnaswamy ;Mr. S. Mayor ;Mrs. Sudha Murty ;Dr. U. B. Muthane
Prof. Y. Narahari ;Prof. G. Padmanabhan ; Prof. M. R. S. Rao ;Prof. G. Rangarajan ; Prof. V.
Ravindranath ;Mr. S. D. Shibulal ;Dr. M. S. Vaniathan ;Justice M. N. R. Venkatachaliah

Mr. Kris Gopalkrishna giving the inaugural address in the recent international conference organized by the centre.
ACTIVITIES @ THE CENTRE SINCE INCEPTION

In line with the objectives of the center for collection, compilation and dissemination of knowledge relevant to the functioning of the human brain a series of lectures by eminent personalities in the relevant areas were arranged:

1. **Dilip V. Jeste, M.D.**, Senior Associate Dean for Healthy Aging and Senior Care; Estelle and Edgar Levi Chair in Aging; Distinguished Professor of Psychiatry and Neurosciences; Director, Sam and Rose Stein Institute for Research on Aging; University of California, San Diego gave a talk on *Neuroscience of Wisdom, Resilience and Well Being* on 24th June 2015.

2. **Avindra Nath M.D.**, Chief, Section of Infections of the Nervous System; Clinical Director, National Institute of Neurological Disorders and Stroke, National Institutes of Health gave a lecture on Recent progress and future challenges posed by neurological diseases on 7th July 2015.

3. **Prof. Andre van Schaik**, Research program leader, Biomedical Engineering and Neuroscience, MARCS Institute for Brain, Behaviour and Development, Western Sydney University gave a talk on Neuromorphic Engineering: Why is it such a hot topic? on 23rd September 2015.

Few more lecture series are slated for the coming months apart from a few seminars/symposia.

In line with these objectives an international conference was organized by the Centre for Brain Research from November 16th to 18th, 2015 at the Faculty Hall of the Indian Institute of Science titled 'Neurodegenerative Diseases: Pathogenesis to Therapy.'

The degeneration of the brain as we age is primarily a medical problem. But, with the increasing ageing population across the world, it has now become an economic issue also.

The first day of the conference focused on Alzheimer disease- its causes, symptoms and possible therapy of its primary symptom - dementia. Prof. John C. Morris, a lifetime achievement award winner from the Alzheimer's Association for his contributions to this field, currently at the Washington University School of Medicine spoke about delaying the onset of dementia in AD and the ongoing trials.

Prof. Yves Joannette, University of Montreal, Canada, talked about the challenge that dementia poses and the collaborative efforts at a global level to understand the origins of the diseases causing dementia.

Prof. Sudha Seshadri from Boston University School of Medicine, presented the genetic aspect of Alzheimer disease research.

The possible links between Dementia and type 2 diabetes were discussed by Prof. Velandai Srikanth, a geriatrician at the Monash medical centre, Monash University, Melbourne.

Dr. Suvarna Alladi, Nizam Institute of medical Sciences, Hyderabad, addressed the possible role of multilingualism in the delay of onset of dementia.

Prof. Mary Ganguli, University of Pittsburgh spoke about the relationship of brains function and dysfunction to the overall population as opposed to an individual.

Dr. Murali Krishna, from CSI Holdsworth Memorial Hospital in Mysore presented his research from populations of Mysore and how nutrition and growth in early life and socio-economic adversities affect cognition in individuals.
Can we remodel the brain after it has aged? This and other very interesting talk were held during the second day of the International Conference 'Neurodegenerative Diseases: Pathogenesis to Therapy'. **Ana Ines Ansaldo from the University of Montreal** discussed brain remodelling as a therapy for Alzheimer's disease.

**Dr. Manjari Tripathi, a Professor of Neurology at the All India Institute of Medical Sciences, New Delhi** spoke on a study that will monitor the health of a rural and an urban group, over the next couple of decades.

**Stanley Fahn from Columbia University** spoke on the symptoms and pathogenesis of Parkinson's disease. The disease is caused due to degeneration of neurons, and it progresses slowly in most people; the person’s brain slowly stops producing dopamine, a neurotransmitter – a chemical used to communicate between neurons.

**Hirsch Etienne from the Brain and spine institute, Paris**, spoke on the unmet therapeutic needs in Parkinson’s disease.

**Mr.K P Mohan Kumar the Director of Inter University Centre for Biomedical Research & Super Specialty Hospital, a Govt of Kerala** an autonomous institution with Mahatma Gandhi University, Kottayam, Kerala, India spoke on the specific protein Prohibitin and its relation with Parkinson's.

**Few Photos of the conference**

![Figure 1 Mr. Kris Gopalkrishna addressing the delegates](image1)

![Figure 2 A view of the delegates & Distinguished Guests](image2)

![Figure 3 Talk by Prof. John C Moris](image3)

![Figure 4 Talk by Prof. Yves Joanette](image4)
IISc to set up brain research centre in Bangalore

by Jan 31, 2014

#Brain #Research #Neuroscience #IISc #India

Email Print Share 

Bangalore, Jan 30 (IANS) - The premier Indian Institute of Science (IISc) and a charitable trust of Infosys co-founder Kris Gopalakrishnan are collaborating to set up a centre for brain research here at a cost of Rs.225 crore.

"The research centre will study various aspects of the human brain's functioning to find cures for neuro-degenerative conditions and diseases, which are accelerated by old age," Pratiksha Trust said in a statement here Thursday.

An international scientific advisory board, headed by Nobel laureate Torsten Wiesel as chairman, will guide the research centre.

"Human brain is one of the nature's biggest mysteries, which is yet to be understood by man. By funding the centre, we are creating a globally recognised, world-class facility for cutting-edge research on the brain," Gopalakrishna said on the occasion.

Columbia University professor Stanley Fahn, University of Chicago don Sangram Sirsi, Washington University don John Morri and University of Geneva don Giovanni Frisoni are members of the advisory board.

The board will also help the centre in its operations, set research goals and guide it in its formative years.

"Among its goals are to understand the relative functions of the brain and leverage it to create better computing models," said Gopalakrishnan, the IT bellwether's vice-chairman.

The trust will also fund setting up three chairs/professorships each in the IISc's computer science department and the Indian Institute of Technology (IIT), Chennai to forge an alliance between medical research and computing.

"We are hopeful the centre will provide impetus to alliances between medical research and computing, attract funds and inspires similar partnerships," Gopalakrishnan added.