### IBRO-APRC SCHOOL 2019 Advanced Techniques to Explore the Functions of Normal & Diseased Brain 22<sup>nd</sup> April to 6<sup>th</sup> May 2019 BMT Wing, SCTIMST, Trivandrum, Kerala, India

### Day 1 Inaugural Function of the IBRO APRC School 22 April 2019, BMT Wing, SCTIMST

Inaugural function of the International Brain Research Organization (IBRO) Asia Pacific Region Committee (APRC) Neuroscience School 2019 was held in MS Valiathan Medical Devices Engineering Block Seminar Hall of the Biomedical Technology Wing in Sree Chitra Tirunal Institute of Medical Sciences and Technology (SCTIMST) on 22nd April 2019. Seven delegates from APRC region arrived from Monash University Malaysia (1); The National University of Malaysia (1); Mahidol University, Thailand (1); Shahid Behesthi University of Medical Sciences, Iran (3); University of Tabriz, Iran (1); and fourteen Indian delegates from Universities, IITs and prestigious Institutions (CSIR - Centre for Cellular and Molecular Biology, Hyderabad (1); CSIR - Indian Institute of Toxicology Research, Lucknow (1); Defence Institute of High Altitude Research, DRDO, Leh & Ladakh (1); Dept of Zoology, University of Delhi (1); Indian Institute of Technology, Mandi (2); Jamia Hamdard, New Delhi (1); JSS College of Pharmacy, Mysore (1); National Institute of Technology, Calicut (1); Panjab University, Chandigarh (1); SCTIMST, Trivandrum (2); Vellore Institute of Technology, Vellore (1); and Bharathidasan University, Trichy (1) participated in this two weeks School.



Welcoming the Guest Speakers and Delegates





### **Proceedings of Inaugural Ceremony**



International Brain Research Organization Asia Pacific Regional Committee School - 2019

## Anced Techniques to Explore the Functins of Normal and Diseased Brain

22 April to 6 May 2019

Division of Sleep Research, Department of Applied Bio Biomedical Technology Wing Chitra Tirunal Institute for Medical Sciences and An Institute of National Importance under Gr Thiruvananthapuram, Kerala - 69501

Ced Techniques to Explore the Functions of No. d Diseased Brain







During the inaugural function of the IBRO APRC School, Dr Harikrishna Varma, Head of BMT Wing & Chairperson of the School welcomed the delegates. Dr Sankara Sarma, Dean, SCTIMST gave a motivating address and highlighted the importance of spirit of introspection in research to explore unknown. Dr Prabha D Nair, former Head of the Department of Applied Biology provided panoramic view of unique and beautiful campuses of SCTIMST amidst royal heritage of Satelmond Palace.

Dr Kamalesh K Gulia, Organizing Secretary of the IBRO School provided introduction to the Program. Dr Gulia informed that School program was meticulously structured consisting of lectures and demonstration and hands-on by eminent neuroscientists. Through active discussions, participants would gain an understanding of brain functioning under normal and diseased conditions using molecular, systems, genetic and epigenetic approaches to understand the basis of neuropsychiatric diseases. The novel tools like optogenetics, imaging techniques in human and

various models, regenerative strategies for neuronal replacement and repair were highlights of the School. Dr Gulia informed that the School contained special session on Neuroethics to sensitize budding neuroscientists for emerging ethical issues involved in brain research. The school included didactic scientific and technical lectures followed by demonstration and hands-on sessions in afternoon. Sundays and evening were marked with socialization events.



The Chief Guest, Prof Asha Kishore (Director, SCTIMST & Chief Patron of the IBRO School), a renowned Neurologist with expertise in movement disorders and Parkinson's disease (PD), addressed the audience. Dr Kishore expressed the need for such Schools in India for improving the skills of the budding neuroscientists. She provided historical perspective of how various important techniques in Neurosciences emerged with passage of time with technological advancements that have provided better glimpse of the brain. She provided spectacular insights into important techniques like magnetic resonance imaging (MRI), fMRI in recent years, patch clamp etc. She explained how deep brain stimulation (DBS) improved the lives of PD Patients. She also emphasized to various tools in neuroscience have helped in not only in early identification of brain diseases but also for developing strategies for the restoration of functions of the brain. Dr Kishore wished participants a fruitful time during the IBRO School in SCTIMST.

hniques to Explore the Functions of rmal and Disease to the functions of

# 22 April to 6 May

Sleep Research, Departm Biomedical Technolo runal Institute for Med Ite of National Import ruvananthapuram, Ko



## **Release of Abstract Book of IBRO School**



ues to Explore the Functions of and Diseased Brain

April to 6 May 2019

Research, Department of Ap Department of



The function was attended by Prof Akihiro Yamanaka (Nagoya University, Japan), Prof Tomomi Shimogori (RIKEN Institute, Japan), Prof Mohanakumar KP, Director (IUCBRSSH, Kottayam), Dr Moinak Banerjee, Dr Omkumar from RGCB (Thiruvanathapuram), galaxy of eminent experts

including Prof MD Nair, Dr Krishnan, Dr Lissy Krishnan, Dr Roy Joseph (Associate Dean, PhD), Dr Mohanan PV, Dr Anoop T, Dr Jayasree RS, Young scientists, Engineers and students of SCTIMST (Trivandrum).



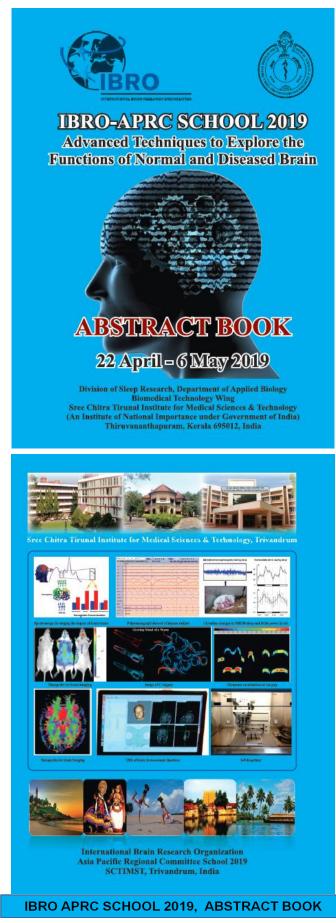
## **Introduction of Participants**











# Lamp Lighting Ceremony





SCTIMST took lead in bringing together renowned neuroscientists from across the globe to discuss the advanced techniques in understanding the functioning the brain in normal and diseased state. Brain is a complex organ in structure and functions with billions of neurons and equally large number of supporting cells named glial cells. This residential school of two weeks is conducted under aegis of International Brain Research Organization (IBRO) from 22nd April to 6th May, 2019, in Thiruvananthapuram for PhD students from Asia Pacific Region Committee zone. The sessions are conducted in the Biomedical Technology Wing and the hospital campus of the SCTIMST. Top neuroscience experts from India, Japan, USA, Sri Lanka and Singapore discuss various tools to get insights into normal and dysfunctional brain.

## Satelmond Palace of the BMT wing Campus

