



## **BIOGRAPHICAL SKETCH OF Dr.VIJAYALAKSHMI RAVINDRANATH**

Dr. Vijayalakshmi Ravindranath obtained her Ph.D from the University of Mysore) in 1981. In 1986, after completing her Post-Doctoral training at the National Cancer Institute, National Institutes of Health, USA, she joined the Department of Neurochemistry at National Institute of Mental Health and Neurosciences, (NIMHANS) Bangalore. In 1999, the Dept. of Biotechnology (DBT), Government of India sought her help to help establish the National Brain Research Centre (NBRC), an autonomous institution of DBT, Ministry of Science and Technology as a centre of excellence and to co-ordinate and network neuroscience research groups in the country. She continued as Director, NBRC till May 2009, when she returned to Bangalore at the Indian Institute of Science as Professor and Chairman of the newly created Centre for Neuroscience.

During her tenure as Director she provided visionary leadership at NBRC, which in a very short period attained a position of being an internationally acclaimed centre of excellence. In a short span of 5 years she established a state-of-art institute in a rather remote location and created a new paradigm for research by integrating mathematical and computational science into the understanding complex biological systems. NBRC was granted deemed University status in May 2002 to help promote human resource development in an inter-disciplinary manner. She networked 45 institutions around the country with NBRC with a goal to share resources and promote neuroscience.

The unifying goal of her laboratory is to understand pathogenic mechanisms underlying neurodegenerative disorders with a goal to discover drug targets that can be used to develop disease-modifying therapies. To this effect, she adopts a combinatorial approach to elucidate important cellular pathways involved in the disease pathways in animal models of Parkinson's and Alzheimer's disease. From the therapeutic angle, she is also involved in defining and identifying the active entities and the mode of action of traditional medicinal preparations used in the treatment of neurodegenerative disorders, particularly senile dementia. Drug targets alone do not ensure successful therapeutic strategies, as in situ drug metabolism in the brain is critical for drug action. In this regard, she is identifying and characterizing brain cytochromes P450 enzymes with particular emphasis on brain-specific biotransformation pathways of both drugs and endogenous compounds that play a role in pathogenic phenomena, such as inflammation in the brain.

Dr. Vijayalakshmi Ravindranath is elected Fellow of all the 3 science academies in the country, namely Indian National Science Academy, Indian Academy of Sciences, National Academy of Sciences, India. She is also a Fellow of the National Academy of Medical Sciences, India, Indian Academy of Neurosciences and Third World Academy of Sciences. She is a recipient of the prestigious S.S. Bhatnagar award (1996), Omprakash Bhasin Award (2001) and the J.C. Bose National Fellowship (2006) and Padma Shri (2010).