

Prof. Samir. K. Brahmachari, FNA, FASc, FNASc

Director General CSIR & Secretary DSIR

Prof. Samir K. Brahmachari, a member of the HUGO Council, the Director of Institute of Genomics & Integrative Biology (IGIB), Delhi under the Council of Scientific & Industrial Research, India since 1997. Earlier he was a Professor of Molecular Biophysics and Genetic Engineering at Indian Institute of Science, Bangalore. He got his Ph.D in 1979 in Molecular Biophysics from Indian Institute of Science, Bangalore.

Prof. Brahmachari made fundamental discoveries in demonstrating the structural flexibility of DNA and the role of repetitive sequences in DNA transactions much before the discovery of repeats association with genetic basis of several neurological disorders. He has made major contributions in molecular analysis of genetic disorders associated with trinucleotide amplification and repetitive sequence instability. Using a combination of structural biology, computational genomics and population based polymorphism scanning he and his group have provided a novel structural frame work for understanding the etiology of several neurological disorders. He was first to establish a close clinical network to address genetics of complex disorders and demonstrated association of two genes to Schizophrenia and Bipolar Disorder and identified several SNPs and other markers associated to various neurological disorders.

Taking advantage of genetic diversity of Indian Population and core expertise in structural biology and computational genomics, he has pioneered functional genomics initiative in India and presently leading the Indian Genome Variation Consortium project towards development of predictive markers for complex disorders and coordinating a national network project in *In Silico* Biology for drug target development. He and his group has developed novel softwares for genome analysis and identified several novel non-active site targets for bacterial pathogen. Recent finding of Prof. Brahmachari and his associates that Human miRNA can target critical genes in HIV, thus preventing HIV proliferation has received wide international recognition. His group has developed computational model for gene-gene interaction network for Complex Disorders like schizophrenia.

He is the recipient of INSA Young Scientists Award in 1979; Kani Medal (National Cancer Research Centre, Japan), 1981; Shanti Swarup Bhatnagar Award (CSIR) 1990; FICCI Award (1999); Millennium Medal (Indian Science Congress) 2000; Ranbaxy Research Award (2001); Prof. B.R. Ambedkar Centenary Award for Excellence in Biomedical Research (ICMR) 2005; J.C. Bose Medal (INSA) 2007; H. K. Firodia Awards For Excellence In Science and Technology (2007). He is an elected member of the Human Genome Organisation, 1991 and is also an elected member of the HUGO Council, 2004. He has been elected to the fellowship of all the three National Academies. Member of various Task Force and Committees, Govt. of India; member, expert group on Human Rights and Biotechnology, United Nations; Council Member, FAOBMB, since 1997; member Indo-European Commission S&T Steering Committee. He has been included in the Advisory Committee of the X-Prize in Genomics which consists of leading Genomics Scientists of the world. Prof. Brahmachari has also been involved in issues relating to Genomics research and Human Rights. As an advisor to Human Rights High Commission, he has also addressed issues of unethical exploitation of genetic resources of the Third World and has championed the concept of rights of patients in benefit sharing in the development of genomic medicines. He has contributed significantly in promoting industry-academia interactions through novel program of knowledge partnership. Prof. Brahmachari has over 130 publications in leading International Journals and has 5 patents and 10 software copyrights to his credit.