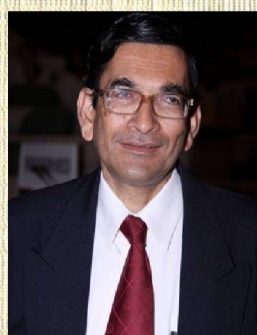


Professor Padmanabhan Balaram: Brief Profile



Professor Padmanabhan Balaram obtained his B.Sc. (1967) from Poona University, M.Sc. (1969) from Indian Institute of Technology (IIT) Kanpur and Ph.D. (1972) in chemistry from the Carnegie-Mellon University, USA. He worked as a Research Associate at the Harvard University (1972-73) with Prof. RB Woodward of the Department of Chemistry. On return to India, he joined the Indian Institute of Science (IISc.), Bangalore as a Lecturer (1973), and then became Assistant Professor (1977), Associate Professor (1982) and finally a Professor in 1986. He was Director of the Institute from 2005-2014.

He has contributed extensively to the area of molecular biophysics and chemical biology in a career spread over four decades. As the Editor of *Current Science* from 1995 to 2013 he authored over 300 editorials on a wide range of topics of interest to the scientific community in India. He has been associated with a number of advisory bodies of the government including the National Knowledge Commission (2007-2010), the Science Advisory Council to the Prime Minister (2005-2014) and the Scientific Advisory Committee to the Union Cabinet (SAC-C, 2001-2017).

Professor Balaram is a recipient of several awards and honours, including Padma Shri (2002); Padma Bhushan (2014). He is a Fellow of Indian Academy of Science, Bangalore; INSA, New Delhi, National Academy of Sciences (Allahabad) and The World Academy of Sciences (TWAS), Trieste, Italy.

He is currently Professor Emeritus, Molecular Biophysics Unit, IISc and DST Year of Science Chair Professor, National Centre for Biological Sciences (TIFR) Bangalore.

G.N. Ramachandran Memorial Lecture

Past Speakers

| | | |
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4th

G. N. Ramachandran Memorial Lecture

Title

G. N. Ramachandran and His Impact on the Field of Polypeptide and Protein Conformations

Speaker

Professor Padmanabhan Balaram

Molecular Biophysics Unit, Indian Institute of Science, Bangalore

Tuesday, 6th November, 2018 at 4:00 pm

at

Silver Jubilee Hall

S. N. Bose National Centre for Basic Sciences

Kolkata - 700 106

G. N. Ramachandran and His Impact on the Field of Polypeptide and Protein Conformations

Professor Padmanabhan Balaram

ABSTRACT

Molecular Biophysics Unit, Indian Institute of Science and National Centre for Biological Sciences, Bangalore
The Ramachandran Map has been central to discussions of polypeptide and protein conformations for over half a century. The hard sphere “contact criteria” used for evaluating the stereochemically allowed conformations of polypeptide chains emerged from the controversies that followed the publication of the Ramachandra-Kartha triple helical model for collagen in the mid-1950s. The use of the backbone dihedral angles ϕ and ψ in defining conformational space for polypeptide chains has been important in subsequent refinements, where structures and their energetics are explored in torsion angle space. The Ramachandran Map has also become the gold standard for validating protein backbone structures determined by crystallography. This talk examines the historical origins of the Ramachandran Map, provides an overview of the key contributions of the Madras school to the understanding of polypeptide stereochemistry and examines the impact of Ramachandran's work on the field of protein and peptide structures.



S. N. Bose National Centre for Basic Sciences

Block-JD, Sector III, Salt Lake,
Kolkata- 700 106

On behalf of the Centre
I cordially invite you to the

4th

G. N. Ramachandran Memorial Lecture

to be delivered by

Professor Padmanabhan Balaram

Molecular Biophysics Unit, Indian Institute of Science, Bangalore

on

G. N. Ramachandran and His Impact on the Field of Polypeptide and Protein Conformations

at

Silver Jubilee Hall

S. N. Bose National Centre for Basic Sciences
Kolkata - 700 106

on

Tuesday, 6th November, at 4:00 pm

Prof. Samit Kumar Ray
Director