



National Institute of Animal Biotechnology

(An Autonomous Institute of the Department of Biotechnology, Ministry of Science and Technology, Government of India)



Dr. Lalji Singh Memorial Lecture

By

Prof. Padmanabhan Balam
Former Director
Indian Institute of Science, Bangalore

On

**“Reflections on Science in the Aftermath of the
Pandemic”**

Date & Time

July 5, 2023, at 10.00 AM

VENUE

M. K. Bhan Auditorium, NIAB

DBT-NIAB

Programme



- 10:00 to 10:05 AM: Welcome note
- 10:05 to 10:10 AM: Tribute to late Dr. Lalji Singh by Dr. G. Taru Sharma, Director, NIAB & guests
- 10:10 to 10:15 AM: Introduction of Prof. P. Blaram
- 10:15 to 11:15 AM: Dr. Lalji Singh Memorial Lecture by Prof. Padmanabhan Balaram
Former Director, IISc, Bangalore
- 11:15 to 11:25 AM: Felicitation to Speaker by Director, NIAB
- 11:25 to 11:30 AM: Vote of thanks
- 11:30 AM onwards: High tea

YouTube link: https://www.youtube.com/channel/UCGfwWgFR_tQPgSG2pE-fy_Q

DBT-NIAB

About the speaker



Prof. Padmanabhan Balaram
Former Director, IISc, Bangalore

Prof. Padmanabhan Balaram is an Indian biochemist and a Former Director of the Indian Institute of Science in Bangalore. He is a recipient of the third highest Indian civilian honour of Padma Bhushan (2014) as well as the TWAS Prize. Prof. Balaram graduated in Chemistry from Pune University, Pune (1967), joined the IIT Kanpur for his Masters in Chemistry (1969). He did his Ph.D from Carnegie-Mellon University, Pittsburgh (1972) and underwent Post-Doctoral training at the Department of Chemistry in Harvard University, U.S.A 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 and then as a Director of IISc.

Prof. Balaram has made outstanding contributions towards the understanding of the structure and function of voltage gated transmembrane peptide channels. His major contributions may be classified into three areas: (i) studies on transmembrane peptide channels, (ii) conformational models for peptide folding and (iii) biophysical and chemical studies on membranes and model systems. He has elucidated the structural chemistry of α -aminoisobutyric acid peptides related to alamethicin. He has carried out detailed studies on synthesis, conformational analysis and biological activity of channel peptides and has provided the basis for postulating the helix dipole model for these channels. Dr Balaram has made valuable contributions in the general area of design and synthesis of model peptides, particularly disulfides. These studies have provided a means for developing bioorganic models for redox proteins containing active disulfide loops. Balaram's contributions in the area of biological membranes and in developing fluorescent probe methodology for examining membrane structure are highly significant. This aspect is exemplified by work establishing regional differentiation of sperm plasma membranes. In his most recent work, he has demonstrated the use of disulfide crosslinking as a means of thermally stabilizing multimeric proteins, using thymidylate synthase as a model.