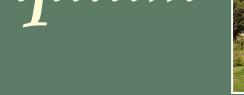


# Bose Colloquium





**S. N. Bose National Centre for Basic Sciences** (An Autonomous Research Institute established under DST, GOI)



28 April, 2023







#### Title:

Impact of acute mental stress on gastropathy/gastric ulcer: Mind - Mitochondria relation in stomach

### Abstract:

Acute mental stress and stress-related mucosal disease are global health problems wherein gastropathy, manifested as superficial mucosal injuries and focal ulcers, are predominant. However, precise understanding of the pathogenesis is lacking. We found severe mitochondrial pathology as indicated by depolarization, compromised dehydrogenase activity and notably abrogated mitochondrial biogenesis in stress. A plausible effect of stress on anomalous mitochondrial turnover was observed from elevated serum corticosterone along with activation and nucleo-mitochondrial translocation of glucocorticoid receptor that probably would account to transcriptional regulation of factors controlling the protein ubiquitination. We highlight the role of abrogated mitochondrial biogenesis in controlling stress-induced gastropathy.

## Speaker:

#### **Professor Uday Bandyopadhyay**

Director, Bose Institute; and Professor at Division of Molecular Medicine, Unified Academic Campus, Salt Lake, Kolkata

## Short biography of the Speaker

Professor Uday Bandyopadhyay is the Director of Bose Institute & Professor at the Division of Molecular Medicine, Unified Academic Campus.

He was a former Professor at the Academy of Scientific and Innovative Research (AcSIR) and a former Senior Principal Scientist of Division of Infectious Diseases and Immunology, CSIR-Indian Institute of Chemical Biology.

He has obtained his Ph. D in 1994 from Jadavpur University (work done at CSIR-Indian Institute of Chemical Biology) and did his Post Doc studies at INSERM (French National Institute of Health), France, Paris and at University of Hamburg, Humboldt Foundation, Germany.

His research interests include Gastric mucosal cell signalling, apoptosis, mitochondrial biology, Wound healing, cell growth, Hostparasite interaction etc.



He has received many honors and awards including J.C. Bose National Fellowship 2015, Fellow of Indian National Science Academy (FNA), 2014, Fellow of Indian Academy of Sciences (FASc), 2013, Fellow of the National Academy of Sciences (FNASc), India 2008, Fellow of the West Bengal Academy of Science and Technology (FAScT) 2009, Humboldt Fellowship (Alexander Von Humboldt Foundation, Germany), 1996, INSERM Fellowship, Paris, France, 1995 etc.