INDIAN INSTITUTE OF CHEMICAL BIOLOGY
(A unit of CSIR, Ministry of Science & Technology, Government of India)

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To whom it may concern

This is to state that I am the fellow of the following scientific academies:

National Academy of Sciences, India (NASI)

Indian Academy of Sciences, Bengaluru, India (IASc)

The citation for the fellowships is the following:

Dr.Chattopadhyay studied the early and unexplored events of protein conformational transitions as implied in basic disease biology of neurodegenerations and infections. Through his work on Neurodegeneration his group showed using spectroscopy at single molecule resolution that a protein at the early microsec can fluctuate between conformers of different radii and forms oligomers. He then combined FRET and FCS to develop methodology to detect the formation of early oligomers, which contribute maximally to the cellular toxicity and solved their structure using CryoEM. In addition, using more than 140 mutants of superoxide dismutase (SOD1) the nominee's group developed a cofactor based membrane association model of ALS, and provided its experimental validations.

His group used model infectious diseases, like Leishmaniasis and MTB to suggest that conformational switch of key proteins play profound general roles in establishing infections. This mechanism of conformational switch can regulate host-parasite interaction and pore formation based on environmental conditions of the host and/or the parasite.

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