## MBBT Silver Jubilee Distinguished Lecture Series 2021-22

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## Time: 11 am to 1:00 PM Date: December 27, 2021

Join 15 min before start of talk Google Meet joining info https://meet.google.com/ftk-hdux-g

E-certificate will be provided to the participants

## **Evolution of "endless forms, most beautiful"**

Molecular mechanism of evolution involves simple nucleotide changes in DNA during replication, resulting in changes in protein structure and possible emergence of new functions. If the emergent properties of the new protein add to the fitness of the organisms, same would be subjected to evolutionary selection. Often, as simple as a single nucleotide change in the gene could result in a new protein function leading to change in anatomical features of a large multicellular organism. Coupled with equally complex and diverse biochemical and physiological traits, what one would see is, as Darwin poetically alluded to - "endless forms, most beautiful", the breathtaking biodiversity that the

earth has borne for the past ~3.5 billion years. I will discuss this simple, but reiterative evolutionary mechanism behind the emergence of biochemical, physiological, morphological, behavioural and ecological complexities in life.



Organized by Department of Molecular Biology and Biotechnology