

LECTURE 6

NATURE & NURTURE: HOW THE ENVIRONMENT SHAPES OUR GENES

The past decade has witnessed the explosion of information in biomedical sciences due to the availability of genome sequences and the development of techniques that assay 'epigenetic' modifications. These modifications highlight how the dynamic changes in the environment ultimately affect the expression of genes on a day-to-day basis and throughout a lifetime. As a result, we pass on much more information than that encoded by our genes to the next generation. Hence, having settled the long-standing nature versus nurture debate, we now appreciate that nature and nurture together make us what we are. The Speaker will illustrate the technological breakthroughs and trans-disciplinary approaches that have enabled a deeper understanding of disease susceptibility, especially focusing on lifestyle disorders.



PROF. SANJEEV GALANDE

Dean, School of Natural Sciences,
Shiv Nadar University, Delhi NCR.
Professor (on lien), IISER - Pune
Fellow, Indian Academy of Sciences

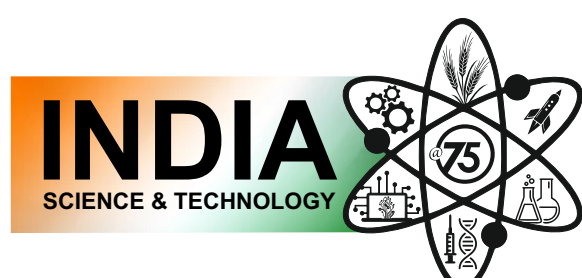
SATURDAY | 13TH NOVEMBER 2021 | 11.00 AM

LIVE STREAM ON  **zoom**

Dr. Galande obtained his PhD in Biochemistry from the Indian Institute of Science in 1996. As a postdoctoral fellow at the Lawrence Berkeley National Laboratory, the USA from 1996-2001, he studied cancer biology. Dr. Galande joined the National Centre for Cell Science in Pune, India in 2001 as a senior scientist. In 2010 Dr. Galande joined as a Professor at the Indian Institute of Science Education and Research (IISER Pune). Research in Galande laboratory is focused on studying how the dynamic changes in higher-order chromatin assembly govern gene expression spatially and temporally. At IISER he leads the Centre of Excellence in Epigenetics (CoEE) and has assembled a team of scientists to study the evolution of epigenetic mechanisms using multiple model systems. The CoE in Epigenetics focuses on epigenetic modifications underlying a variety of biologically important phenomena and their role in gene expression, regeneration, cancer, behavior, aging and evolution. To fulfill these goals Dr. Galande has established a multidisciplinary program engaged at the interface of biochemistry, molecular biology, bioinformatics, cell biology, proteomics and genomics.

Dr. Galande was a recipient of the International Senior Research Fellowship from the Wellcome Trust, UK, from 2005-2010, the National Bioscience award in 2006, the Swarnajayanti Fellowship in 2007, the Shantiswaroop Bhatnagar Award in 2010, the GD Birla Award for Scientific Excellence in 2015, and the JC Bose Fellowship in 2019. Dr. Galande is an elected fellow of the Indian Academy of Sciences, the Indian National Science Academy, and the National Academy of Sciences (NASI). Prof. Galande was an honorary associate faculty at the University of Sydney, Australia and a visiting faculty at the University of Turku, Finland. He also served as the Dean, Research and Development at IISER-Pune. In June 2021, he joined as the Dean of the School of Natural Sciences at Shiv Nadar University, Delhi NCR.

Currently, Dr. Galande is establishing a new Centre for Integrative and Translational Research at this university. Lab webpage: www.sglabepigenetics.com



As a part of the "India S&T @75" events during the countdown to the 75th year of India's independence, the Pune Knowledge Cluster will be organising a number of lectures on scientific topics. These lectures will be delivered by Fellows and Associates of the Indian Academy of Sciences, who are based in Pune, and will be organised in association with the Academy. The lectures will cover a wide variety of topics, ranging from cutting edge science and technology to developments in these areas in the country over the 75 years since independence.