

Dr Amit Sharma

Associate Fellow

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Research Focus:

Amit is a physicist by education. He got exposed to the world of interdisciplinary approaches in biology for the first time when he attended a course in biophysics during his masters and thereafter while doing a project in mathematical biology during a year of diploma course in advanced physics from Institute of Physics, Bhubaneswar. This persuaded him towards research in biology. Then he joined NCBS-TIFR interdisciplinary (Physics to Biology) PhD program after getting selected for PhD in Physics as well as in Biology at TIFR, Mumbai. As a part of his PhD curriculum, along with studying basic courses in Physics and Biology from IISc and NCBS, Bangalore, he also studied interdisciplinary courses such as biological physics, biophysical chemistry, computational simulations in biology, bio-imaging, spectroscopy and protein crystallography. He initiated in the field of research by working both in the experimental and theoretical aspects of cellular biophysics for two years and then did his PhD in structural and biochemical studies on bacterial Y-Family DNA polymerases in the group of Dr. Deepak T Nair at NCBS. Thereafter, he pursued a postdoc in Professor. Richard Neutze's group in University of Gothenburg, Sweden studying structure determination and dynamics of light inducible proteins through the combination of recent advances in x-ray based serial crystallography, wide angle x-ray scattering and molecular dynamic simulations studies.

Current Research Interests

Licensed by light: Allostery in photoreceptors : Amit is inclined towards understanding the functional mechanisms adopted by these photoreceptors and what role they play in enhancing metabolic activities.