



INSTITUTE COLLOQUIUM

(Biological Sciences)

INDIAN INSTITUTE OF SCIENCE

Prof. Dipankar Chatterji
Molecular Biophysics Unit

will deliver a lecture
on

Tackling starvation in bacteria: An ultimate metabolic sensor

Tuesday, 14th February 2006
4.00 pm in the Faculty Hall

THE DIRECTOR
will preside

All are cordially invited
Coffee/Tea: 5.00 pm
Venue: Reception Hall

Abstract

The hallmark of bacterial survival is its adaptability through the control of gene expression according to the demands from surroundings. However, it is being increasingly understood that there are several players in the process who are acting in spatial and temporal manner all with one goal in mind, how to keep the organism alive under most difficult situation. At times they need to survive under limited oxygen or nutrients, or under the onslaught from free radicals generated as metabolic byproducts. Therefore several interesting strategies are adopted, many new proteins or small molecules are synthesized. A large number of them act on RNA polymerase, the key enzyme in the central dogma of molecular biology. We will discuss few of these strategies and show how the problems now can also be addressed at the single molecule level.