



INSTITUTE COLLOQUIUM

INDIAN INSTITUTE OF SCIENCE
BANGALORE

PROFESSOR VIDYANAND NANJUNDIAH
DEPT. OF MOLECULAR REPRODUCTION, DEVELOPMENT AND GENETICS
AND
CENTRE FOR ECOLOGICAL SCIENCES

will deliver a lecture

on

LIFE AND DEATH IN A SOCIAL AMOEBIA

On Thursday, the 21st December, 2000

at 4.00 PM in the Faculty Hall.

THE DIRECTOR

will preside.

All are cordially invited.

Coffee : 5.00 PM

Reception Hall

Prof. S S KRISHNAMURTHY

Convener

ABSTRACT

An amoeba that lives in the soil suddenly runs out of food. In order to escape death by starvation it embarks on a highly risk-prone strategy. The strategy can be thought of as a game whose aim is to get together with other similarly-placed amoebae and persuade them to sacrifice themselves for its sake. Obviously, not all can succeed. The unfolding of this game involves a series of complex and - in a logical sense - arbitrary events. They include cell-to-cell signalling via specific chemicals, oscillatory wave propagation and the construction of an elaborate three-dimensional morphology by self-organization. The talk will attempt to throw light on the proximate causes that lie behind some of these events. While doing so we will speculate on the ultimate causes, having to do with evolution, that are fascinating but as yet unknown.