

IIT Bombay is organising an Institute Lecture on Thursday, March 31, 2011. The details are as follows:



Speaker: **Prof. José Ruiz-Herrera**
Emeritus Professor
Centro de Investigación y de Estudios
Avanzados
IPN. México

Title : **Fungi as Models for the Molecular Analysis
of Cell Differentiation: The Dimorphic
Phenomenon.**

Day & Date : Thursday, March 31, 2011

Time : 4.00 pm

Venue : P. C. Saxena Auditorium

All are invited.

Abstract:

Cell differentiation is the phenomenon by which cells of a multicellular organism specialize functional and/or morphologically to fulfill a particular function. And as the speaker defined "Differentiation is the sum of events that correctly applied in time and space result in the specialization of a cell without alterations in its genetic characteristics".

The study of this phenomenon has attracted the attention of scientists, because of its importance in almost all fields of Biology both theoretical and applied. Due to its complexity, its study in model systems may help to understand its most basic molecular mechanisms. Because of their characteristics, their facility to grow and yield to the techniques of biochemistry, and classical and molecular genetic techniques, fungi are ideal models for these studies. The most important differentiation phenomena in fungi are spore germination, sporulation and dimorphism. Dimorphism is the ability of fungi to grow in the form of yeast-like cells that multiply through budding, or in the form of hyphae characterized by apical growth, depending on the environmental conditions or in response to internal stimuli.

In the lecture Prof. José Ruiz-Herrera seminar will present selected data that he has obtained in different fungal systems that illustrate the importance of dimorphism as a model of the phenomenon of differentiation.

About the Speaker

Professor Ruiz-Herrera is an emeritus professor in CINVESTAV and visiting professor in Universities of Valencia, Sevilla and others in Spain. He obtained his PhD in Microbiology from the Rutgers University in 1963. His main research interests are Structure and synthesis of the fungal cell wall and molecular bases of fungal differentiation and morphogenesis. Professor Ruiz-Herrera has published more than 200 papers and edited and authored 4 books. Interestingly he has made one scientific film on Mucor dimorphism with the Institut für den Wissenschaftlichen Film, Göttingen, Germany. He participated 200 plus national and international conferences by invitation. He has lot of honours and awards at his credit. To name a few, National Prize from the Mexican Academy of Sciences, México, "Ruth Allen" Award from the American Phytopathological Society, "for outstanding contributions to the science of plant pathology", National Award in Sciences. México.(the highest national award to a mexican investigator). He was also president of Mexican Society of Microbiology and also of the Mexican Society of Biochemistry.