IMS Public Lecture

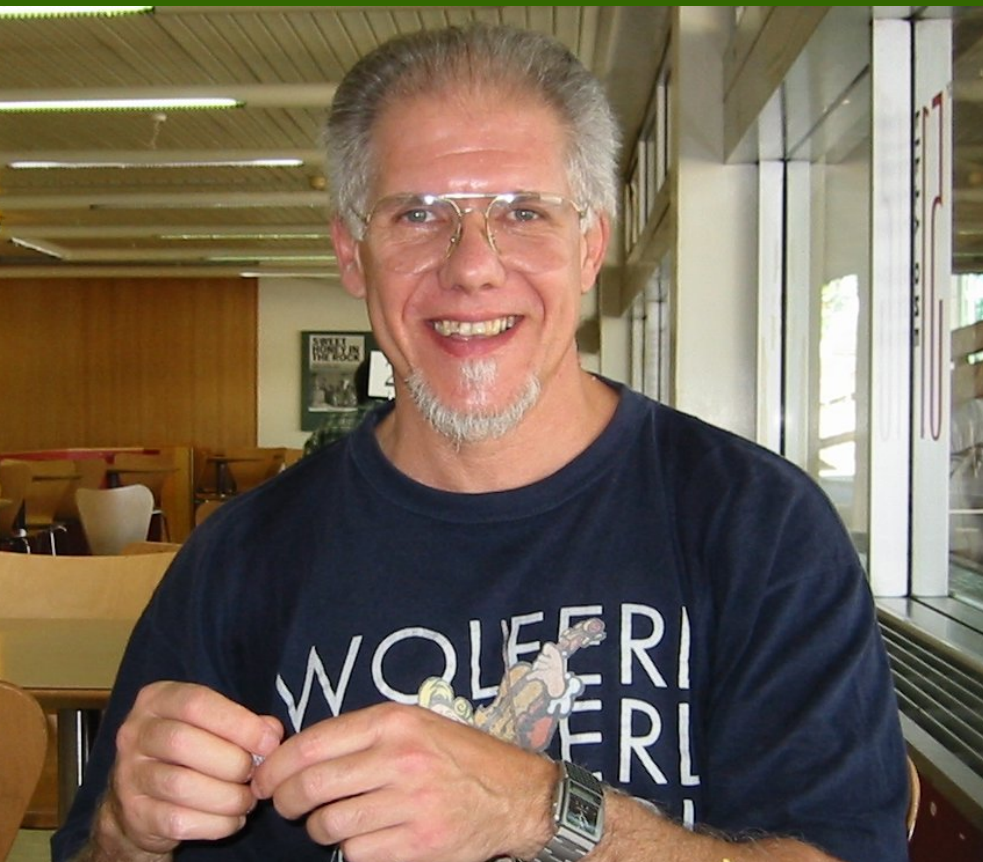## Mathematical Models of Dengue Fever

Speaker: Professor Eduardo Massad
University of São Paulo, Brazil
Courage Fund Visiting Professor, NUS

Date: Wednesday, 24 October 2007

Time: 6:30 PM – 7:30 PM

Venue: LT31, Faculty of Science
Block S16, Science Drive 1
National University of Singapore
Singapore 117543

FREE ADMISSION

About the Speaker

Professor Eduardo Massad is Professor of Medical Informatics at the University of São Paulo in Brazil and has been an Honorary Professor of Infectious and Tropical Diseases at the London School of Hygiene and Tropical Medicine since 2003. He visited Singapore in 2005 as the inaugural Courage Fund Visiting Professor of Infectious Disease and Epidemiology. His present visit is also sponsored by the Courage Fund.

Professor Massad's main research interests are in Medical Informatics and Mathematical Biology. He is a world-renowned specialist in the field of infectious disease epidemiology and the mathematical modeling of infectious diseases. He has done a wide range of modeling work spanning Dengue, Yellow Fever, Hepatitis A, vaccine preventable diseases, parasitology, HIV and antimicrobial resistance.

Abstract

Mathematical modelling enables medical and research workers to discover the likely outcome of an epidemic or to help determine optimal control strategies against infectious diseases. In this public lecture, an original mathematical model of dengue transmission will be presented. The model takes into account the impact of temperature increase on the Aedes mosquito population. The model is tested against real data from Singapore and it explains a number of epidemiological features of the last epidemics.

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