

# DBS Public Lectures 2009

This event is part of the 60<sup>th</sup> Anniversary Celebrations of the Department of Biological Sciences, NUS

Venue: LT 31, Blk S16 | 6.30pm - 8pm

Lecture 1 (18 August 2009, Tuesday)

A light refreshment (Halal and suitable for vegetarian) will be served after the talks

FREE  
Admission



## Talk 1 Prof. Paul Matsudaira *"Movement is Life"*

**Abstract:** From the Compact Oxford English Dictionary: movement (noun) an act of moving life (noun) the condition that distinguishes animals and plants from inorganic matter. Movement is a change in position with time and from Newton we know motion requires force. At some level, life is an expression of self-sustaining, autonomous forces. Our daily existence is not only expressed by movements and motions but also requires movements and motions at the

microscopic level. In the last decade biologists have begun to explore how life is a system of machines. Using the automobile as an analogy, we'll travel through the dimensions of space to see how nanomachines perform work in cells, how cells become customized to perform special types of jobs, and how cells are organized into communities following nature's blueprint for architectural design.

**About the speaker:** Professor Paul Matsudaira earned a PhD in biology from Dartmouth College in 1981 and completed postdoctoral research at the Max Planck Institute for Biophysical Chemistry in Göttingen, Germany and at the Medical Research Council Laboratory of Molecular Biology in Cambridge, England. He was previously Professor of Biology and Bioengineering at MIT and a Member of the Whitehead Institute. Professor Paul Matsudaira has recently become the Head of the Department of Biological Sciences, NUS. His research is concentrated in two areas: the mechanics of cell movement and bioengineering technologies.



## Talk 2 Prof. Leo Tan *"Confessions of a Nature Addict"*

**Abstract:** It is difficult to imagine there was a Singapore that had vast tracts of natural vegetation and marine life just fifty years ago. The natural areas have diminished greatly over the decades, causing a lot of grief, anguish and a sense of helplessness but it sparked a fire in the heart and mind of a young and foolhardy student to try to save at least one coral patch on the main island. The journey was long and fraught with difficulties but persistence, passion and persuasion paid off with the legislating of 10 hectares of Labrador Park into a

Nature Reserve in 2002. What drives people to take up nature causes and do they do so for valid reasons or just to satisfy their personal cravings and addictions? The existence of Sugei Buloh, Chek Jawa, Semakau point to more than vested interests!

**About the speaker:** A marine biologist, Prof Leo Tan became a Lecturer in Zoology and Physiology in 1974. He was seconded to the Singapore Science Centre as CEO in 1982, concurrently holding his position as Senior Lecturer in NUS. In 1991, he was appointed Associate Professor and Foundation Dean of Science in NTU, tasked to help build the new National Institute of Education for teacher education. A full professorship came a year later, and in 1994, he was appointed the Director of NIE. In 2008, his career turned a complete cycle when he returned to NUS as Professor and Director (Special Projects) in the Faculty of Science Dean's Office where he is working on interdisciplinary programmes, promoting environmental, biodiversity and conservation education and research; and participating in a survey of the marine life of the Semakau Landfill

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