Seminar

Title:
“Proteome Mining - Discovery of Novel Drugs to Treat Infectious Disease”

Speaker:
Associate Professor Timothy Haystead
Department of Pharmacology & Cancer Biology
Duke University Medical Center

Host:
Associate Professor Subhash Vasudevan
Emerging Infectious Diseases Program
Duke-NUS Graduate Medical School Singapore

DATE
Thursday
08 April 2010

VENUE
Duke-NUS Graduate Medical School
Singapore
Amphitheatre, Level 2
8 College Road, Singapore 169857

TIME
2.00pm to 3.00pm

Abstract:
Proteome mining technology is used to screen pathogen purinomes en masse to define chemical starting points for the development of a new generation of antibiotics and antivirals that are innately resistant to the development of drug resistance. Proteome mining is a form of directed evolution and enables a captured druggable proteome such as the purinome to be sorted against large chemical libraries containing drug-like molecules and subsequently advanced to drug development programs. The technology was successfully applied to discover a novel inhibitor of the client bound form of HSP90, SNX5422, which is currently in multiple clinical trials for cancer.
Biography:

In 1988, Associate Professor Timothy Haystead obtained his PhD in Biochemistry from the University of Dundee Scotland, with Professor Philip Cohen and Grahame Hardie working in the regulation of fatty acid synthesis. From 1988 to 1991, he worked at the University of Washington Seattle US with Professor Edwin Krebs on a postdoctoral project on protein kinase signaling - chiefly MAP kinases. From 1991 to 2000, he rose from an Assistant Professor to full Professor at the University of Virginia, Department of Pharmacology, focusing on the regulation of smooth muscle contraction. In 2000, Associate Professor Haystead joined Duke Pharmacology to develop proteomics technologies for drug discovery but continued in the smooth muscle field. In 2000, he founded Serenex Inc, which used proteome mining technology to discover the novel anticancer drug SNX5422. The company was acquired in 2008 by Pfizer, and the drug is doing well in clinical trials. In 2008, he founded the Institute for Global Disease Medicines (IGDM), of which he is currently the President and Chief Scientific Officer. The organization focuses on discovery of new medicines for diseases of the developing world.