



The Chinese University of Hong Kong  
Cell and Molecular Biology Programme

Co-organizer

BIO-GENE

伯齊科技

# Stem Cell Technology & its Application to Biomedical Research

**Date: 23rd Nov, 2009 (Monday)**

**Time: 2:30- 4:00pm**

**Venue: L4, Science Centre, CUHK**

**Speaker: Biao Lu, MD, PhD  
(System Biosciences)**

## Abstract

Recent success in reprogramming of differentiated human somatic cells into an induced pluripotent stem (iPS) cell status has started a new era in regenerative medicine. With the development of efficient and safe reprogram protocols, we are now able to create patient- and disease-specific stem cells to study mechanisms of disease and to use these cells as human models for drug development as well as toxicity screening. In addition, derivatives of iPS cells are now closer to generate any types of patient-specific cells for applications in regenerative medicine. Here we review the state-of-art techniques currently used to induce differentiated somatic cells into iPS cells and effective protocols to derive iPS to therapeutic cell types such as neurons, myocytes, and insulin secretion beta cells. Other related technologies to facilitate the identification, isolation, characterization, and maintenance of iPS cells will also be discussed.