FOD Research Club

Schedule (January 2011)

Seminar Room 3A, 1 – 2pm, Wednesdays, Jan 2011

No research Meeting
5th Jan 2011

No research Meeting
12th Jan 2011

1. Jan 19th Wed 2010, 1-2.00pm
   - Speaker: Dr Ravenska Wagey, Stemcell Technologies
   - Title: 1. Mesenchymal Stem Cell (MSc) culture
     2. Reproducible, uniform embryoid body formation
     3. Non-viral, non-integrating DNA mini-circle for reprogramming
     4. CD34 positive cell selection

2. Jan 26th Wed 2010, 1-2.00pm
   - Speaker: Prof Fuh Y H Jerry, Dr Thian Eng San and Dr Sun J, Department of Mechanical Engineering, National University of Singapore
   - Title: 3-D Drop-on-demand Micro Dispensing Techniques for Bio-medical applications

[Abstract]

The advancement of micro-dispensing (or printing) technologies has been driven by the need for manufacturing process for miniaturization, dynamic design change, time and cost reduction, and environmental friendliness. It is promising to adopt drop-on-demand (DoD) micro-dispensing of functional materials to accrete solid three-dimensional structures in various fields of applications, including electronics, optics and sensors, biotechnology, light-emitting devices, ceramics and so on. Compared to other RP methods, DoD printing is recently being emerged as a more promising player in RP research and industry due to its advantages in high resolution and accuracy, low cost, non-contact, easy of material handling, compact in machine size, and environmental friendliness. Here at the Department of Mechanical Engineering, a DoD micro-dispensing system has been developed with some promising results for building functional devices for biomedical applications, e.g. bio-active implant coating and scaffolds. This seminar will present various drop-on-demand, micro-dispensing (or printing) technologies and their medical applications.