
The 58th iCeMS SEMINAR

2010 9. 10 (金)
16:00-17:00

演 題 : **PET Probe Development
Using Digital Microfluidics**

講演者 : **Asst. Prof. Clifton Kwang-Fu Shen**
Director of Crump Cyclotron Facility and Radiochemistry
Technology Center, Crump Institute for Molecular Imaging
Department of Molecular and Medical Pharmacology,
David Geffen School of Medicine at UCLA

場 所 : 京都大学 アイセムス本館 2階 (東一条北西角)
セミナー室 (A207)

The microscale radiolabeling of biologics using a versatile 18F-tag was demonstrated in our digital microfluidic chips. Consuming only small amounts of samples, the optimal conjugation parameters were obtained rapidly by screening individual droplets with different compositions. Batches of products can be then generated from one single droplet to a mouse-dose scale for probe evaluation or/and in vivo studies. Our idea is to create a device capable of preparing various biologics-based, target-specific PET probes on demand, in an automated fashion with minimal operator skill. Our vision is to make PET probes easily accessible so that researchers can study the underlying biology of diseases and, at the same time, clinicians can gather more detailed molecular information about each individual patient before choosing therapeutics and monitor progress after the targeted treatments.