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# The 48th iCeMS SEMINAR

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**Wed 31 Mar 2010**  
**16:30-17:30**

## **A High Throughput Cell-Based Assay for Identifying Inhibitors of AP-1 from NCI Compound Repositories**

Lecturer: **Moon-IL Kang, Ph.D.**

Laboratory of Cancer Prevention, Center for Cancer Research  
National Cancer Institute at Frederick (NCI-Frederick)  
National Institutes of Health (NIH), U.S.A.

Venue: 2nd floor Seminar Room (#A207)  
Main Building iCeMS Complex 1, Kyoto University

Transcription factor AP-1 activity is required both to induce and to maintain tumor phenotype in carcinogenesis. The high throughput cell-based assay is designed to screen compound targeting AP-1 by using FRET (Fluorescence Resonance Energy Transfer) substrate to quantify the activity of  $\beta$ -lactamase reporter. Synthetic compound libraries and the National Cancer Institute natural product extract were screened to identify AP-1 hit, and the optimized screening was coupled with cytotoxicity assay in the same wells without having to do it in parallel. Several natural and synthetic compounds have been confirmed they could be promising candidates as anti-cancer drug having potential therapeutic activity for cancer treatment or prevention.

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**Hosted by:** iCeMS (Institute for Integrated Cell-Material Sciences), Kyoto University

