

# iCeMS-RIKEN Joint Symposium

Hiroshi Abe/Hokkaido U

Jun Ando/Osaka U

Kosuke Dodo/RIKEN

Shinya Hagihara/Nagoya U ITbM

Yuichiro Hori/Osaka U

Akihiko Nakajima/U of Tokyo

Hiroaki Onoe/U of Tokyo

Reiko Sakaguchi/iCeMS

Shin-ichi Sato/iCeMS

Yuki Sudo/Nagoya U

Kaoru Sugimura/iCeMS

Tasuku Ueno/U of Tokyo

Yuma Yamada/Hokkaido U

Takao Yamaguchi/Osaka U

*Friday 7 February 2014*

*Kyoto Univ iCeMS Main Bldg*

# Mesosopic Chemical Biology

*Integrated Chemical-Physical  
Systems Towards Cell Control*



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iCeMS-RIKEN Joint Symposium on  
**Mesoscopic Chemical Biology**  
**Integrated Chemical-Physical Systems Towards Cell Control**  
7 February 2014, Kyoto University iCeMS

9:30–9:50 Opening Remarks

**Susumu Kitagawa** (Director, Kyoto University/iCeMS)

**Shin-ichi Sato** (Kyoto University/iCeMS)

Session 1 (Chair: Hideki Hirori & Kaoru Sugimura)

9:50–10:15 **Akihiko Nakajima** (University of Tokyo)

*How Do Cells Know in Which Direction to Move  
in Spatiotemporal Chemical Environments?*

10:15–10:40 **Tasuku Ueno** (University of Tokyo)

*A Functional Small Molecule-Based Signal Perturbation System*

10:40–11:05 **Kaoru Sugimura** (Kyoto University/iCeMS)

*Toward Understanding the Integration of Mechanical and Chemical Control  
of Morphogenesis*

11:05–11:30 **Yuki Sudo** (Nagoya University)

*Photobiophysical Chemistry: What Should We Learn from Retinal Proteins?*

11:30–11:55 **Jun Ando** (Osaka University/ERATO)

*Raman Microscopy for Visualizing Small Molecules in Live Cells*

11:55–13:30 Lunch

Session 2 (Chair: Kosuke Dodo & Mizuki Watanabe)

13:30–13:55 **Yuichiro Hori** (Osaka University)

*Development of Small Molecules with Fluorogenic Switches  
for Visualizing Protein Function and Localization*

13:55–14:20 **Takao Yamaguchi** (Osaka University)

*Potential Use of an O-Nitrobenzoxadiazole (O-NBD) Unit  
for Fluorogenic Protein Labeling in Living Cells*

14:20–14:45 **Shin-ichi Sato** (Kyoto University/iCeMS)

*A Small-Molecule Based Method for Live-Cell Imaging of an Endogenous RNA*

14:45–15:10 **Reiko Sakaguchi** (Kyoto University/iCeMS)

*Guanosine Recognition by Dissimilar tRNA Methyltransferases*

15:10–15:35 **Hiroshi Abe** (Hokkaido University)

*Synthetic Biology of Circular RNA*

15:35–16:00 Coffee Break

Session 3 (Chair: Shuhei Furukawa & Ken-ichiro Kamei)

16:00–16:25 **Kosuke Dodo** (RIKEN/ERATO)

*Cell Death Control Molecules*

16:25–16:50 **Shinya Hagihara** (Nagoya University/ITbM)

*Chemical Approaches Toward Controlling Plant Growth*

16:50–17:15 **Yuma Yamada** (Hokkaido University)

*MITO-Porter, Liposome-Based Nano Device for Mitochondrial Control*

17:15–17:40 **Hiroaki Onoe** (University of Tokyo/ERATO)

*Microfluidic Technology for Macroscopic Tissue Reconstruction*

17:40–17:50 Closing Remarks

**Kosuke Dodo** (RIKEN/ERATO)

18:00– Reception