

## The 8th LLPS Symposium/ The Biophysical Society of Japan Joint Seminar

**“Toward establishing LLPS research systems”**

Date : September 24 (Tue) 9:15 - 18:00, 25 (Wed) 9:30 - 12:30, 2024

Place : Institute for Protein Research, Osaka University (1F lecture room)

**September 24 (Tue)**

Opening remarks 9:15 - 9:30

**Tomoto Ura (University of Tsukuba) 9:30 - 10:10**
*Enzymes and liquid-liquid phase separation: In vitro and in cellulo*
**Keisuke Yuzu (National Yang Ming Chiao Tung University, Taiwan) 10:10 - 10:40**
*Optical trapping-induced spatiotemporal formation of a single liquid-like condensate of  $\alpha$ -synuclein at solution surface*

Coffee break

**Yun-Ru Chen (Academia Sinica, Taiwan) 10:50 - 11:30**
*Understanding aggregation of TDP-43 and dipeptide repeats in neurodegenerative diseases*
**Noriyoshi Isozumi (Nara Medical University) 11:30 - 12:10**
*Zinc finger domains bind low-complexity domain polymers*

Lunch break

**Tomohiro Yamazaki (Osaka University) 13:30 - 14:10**
*The formation mechanisms and molecular bases: Biomolecular condensates with RNA scaffolds*
~~**Yaakov Levy (Weismann Institute of Science, Israel) 14:10 - 14:50**~~
~~*Structure, dynamics and driving forces of biomolecular condensates*~~
**Shinya Tahara (Tohoku University) 14:10 - 14:30**
*Raman microscopic analyses revealed how a drug and RNAs interact with phase-separated proteins*
**Keiji Kitamura (Ritsumeikan University) 14:30 - 14:50**
*Modulation of biomolecular liquid-liquid phase separation by preferential hydration and interaction of small osmolytes with proteins*
**Akihiro Kishimura (Kyushu University) 14:50 - 15:30**
*Designer coacervates as artificial biomolecular condensates*

Coffee break

**Ryou Kubota (Kyoto University) 15: 50 - 16:30**
*Liquid-liquid phase separation of synthetic designer dipeptides: self-assembled structures and functions*
**Samrat Mukhopadhyay**

(Indian Institute of Science Education and Research, India) 16:30 - 17:10

*The inner workings of biological condensates*
**Hajime Tamaki (Osaka University) 17:10 - 17:50**
*How is solid-state NMR useful for the LLPS studies?*

Opinion exchange and discussions 18:00 - 19:30

**September 25 (Wed)**
**Ryo Kitahara (Ritsumeikan University) 9:30 - 10:10**
*Pressure, temperature, and osmolyte effects on protein liquid-liquid phase separation*
**Shiroh Futaki (Kyoto University) 10:10 - 10:50**
*Intracellular protein infusion from complex coacervates*

Coffee break

**Reiko Sugiura (Kindai University) 11:00 - 11:40**
*Phase separation orchestrates MAPK signaling: Role of stress granules as signaling hubs*
**Kiyoto Kamagata (Gifu University) 11:40 - 12:20**
*Watching, manipulating, and creating protein droplets*

Closing remarks 12:20 - 12:30

 Participate fee : free  
 No registration required

 Organizers : Masatomo So (Kyoto Univ.), Kiyoto Kamagata (Gifu Univ.), Ryo Kitahara (Ritsumeikan Univ.),  
 Tomoshi Kameda (AIST), Yoh Matsuki (Osaka Univ.)

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