10th RSC-CSJ Joint Symposium
- Chemistry for Complex Biological Systems -

September 7th, 2019

Tohoku University, Sendai, Japan

9:00 - 09:10 Opening remarks (Itaru Hamachi, Kyoto University)

(Chair: Shinya Tsukiji, Nagoya Institute of Technology)

9:10 - 09:45 **[JP1]** Shigeki Kiyonaka (Nagoya University)
New Chemogenetic Approaches for Artificially Controlling Neurotransmitter Receptor Function in Neuronal System

9:45 - 10:20 **[UK1]** Martin Fascione (University of York)
Organocatalyst-mediated Bioconjugation of Proteins

10:20 - 10:35 Break

(Chair: Hiroshi Murakami, Nagoya University)

10:35 - 11:10 **[JP2]** Yuki Goto (University of Tokyo)
Artificial In Vitro Biosynthesis for Elaboration of Pseudo-natural Peptides

11:10 - 11:45 **[UK2]** Yu-Hsuan Tsai (Cardiff University)
Using Genetically Incorporated Unnatural Amino Acids to Study and Control Protein Function

11:45 - 12:20 One-min flash talk for poster presentation (31 presenters)

12:20 - 14:20 Lunch & Poster

(Chair: Shinsuke Sando, University of Tokyo)

14:20 - 14:55 **[JP3]** Shinya Hagihara (RIKEN)
Dissection of Plant Hormone Signaling with Synthetic Molecules

14:55 - 15:30 **[UK3]** Rebecca Goss (University of St Andrews)
Blending Synthetic Chemistry with Synthetic Biology in vivo to Enable Access to New to Nature Natural Products

15:30 - 15:45 Break

(Chair: Moritoshi Sato, University of Tokyo)

15:45 - 16:20 **[JP4]** Kenjiro Hanaoka (University of Tokyo)
Construction of a Library of Asymmetric Si-rhodamine Fluorophores and its Application to Ratiometric Fluorescence Probes for pH

16:20 - 17:55 **[UK4]** Akane Kawamura (University of Oxford)
Development of Chemical Tools for Epigenetic Proteins

16:55 - 17:10 Break

(Chair: Hirohide Saito, Kyoto University)

17:10 - 17:45 **[JP5]** Hisae Tateishi-Karimata (Konan University)
Role for G-quadruplexes of Nucleic Acids During Tumor Progression

17:45 - 18:20 **[UK5]** John Brazier (University of Reading)
Expanding The i-motif – Why Does Sequence Matter?

18:20 - 18:30 Closing remarks (UK representative)

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東北大学 多元物質科学研究所
IMRAM
INSTITUTE OF MULTIDISCIPLINARY RESEARCH FOR ADVANCED MATERIALS TOHOKU UNIVERSITY

Chemistry for Multimolecular Crowding Biosystems
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Titles for Poster Presentations (in alphabetical order)

Speaker (Family-name-first)	Affiliation	Title of the Poster Presentation
ENDOH, Tamaki	FIBER, Konan University	RNA-capturing Microsphere Particles (R-CAMPs) for Optimization of Functional RNAs
FUJIEDA, Nobutaka	Graduate School of Life and Environmental Sciences, Osaka Prefecture University	Artificial Metalloenzymes Bearing a Small Barrel Protein
FUJITA, Daishi	iCeMS, Kyoto University	Protein Stabilization and Refolding in a Chaperonin-inspired Synthetic Cage
HAYASHI, Gosuke	Nagoya University, Graduate School of Engineering	Cysteinylprolyl Imide (CPI) Crypto-thioester for Chemical Protein Synthesis
HIRAYAMA, Tasku	Gifu Pharmaceutical University	Development of Fluorescent Probes of Subcellular Labile Fe(II)
HORI, Yuichiro	Graduate School of Engineering, Osaka University	Fluorogen/Protein Hybrid Probes for Detection of RNA Methylation
IMANISHI, Miki	Kyoto University, Institute for Chemical Research	A Simple Screening System for Inhibitors of m6A-Regulatory Enzymes
INABA, Hiroshi	Tottori University, Graduate School of Engineering	Modulation of Microtubules by Peptide-based Encapsulation of Nanostructures
ITOH, Yukihiro	Graduate School of Medical Science, Kyoto Prefectural University of Medicine	Identification of a KDM5C Inhibitor and Its Biological Evaluation
KATSUDA, Yousuke	Kumamoto University	Development of a Novel Tool to Regulate Gene Expression Level by Short Nucleic Acid
KISHIMURA, Akihiro	Department of Applied Chemistry, Faculty of Engineering, Kyushu University	Control of The Formation Process of Polypeptide Self-assemblies for Understanding Complex Biological Systems: From Nano-physiology to Artificial Cells
KOMATASU, Toru	Graduate School of Pharmaceutical Sciences, The University of Tokyo	Establishment of Enzymomics Approach to Screen Disease-related Alternation of Enzymatic Functions
MIZUKAMI, Shin	Tohoku University, Institute of Multidisciplinary Research for Advanced Materials	Development of Chemical Probes for Investigating Biomolucular Dynamics in Living Cells
MURAKAMI, Hiroshi	Nagoya University, Department of Biomolecular Engineering	TRAP Display for Selection of Synthetic Antibodies
MURAOKA, Takahiro	Tokyo University of Agriculture and Technology	Synthetic Promotors of Oxidative Protein Folding
NAGATOISHI Satoru	The University of Tokyo, The Institute of Medical Science	Biophysics of the protein-ligand interactions to regulate the protein functions

Speaker (Family-name-first)	Affiliation	Title of the Poster Presentation
NAKASE, Ikuhiko	Graduate School of Science, Osaka Prefecture University	Biofunctional peptide-modified exosomes for intracellular delivery
NAKATA, Eiji	Kyoto U.	DNA Binding Adaptors to Locate Multiple Enzymes on DNA Scaffold
SAITO, Hirohide	Kyoto University	Synthetic RNA Technologies to Program Cells
SANDO, Shinsuke	The University of Tokyo, Department of Chemistry and Biotechnology	Molecular Technologies to Control Cellular Functions and Fates
SATO, Moritoshi	Graduate School of Arts and Sciences, The University of Tokyo	Manipulating Living Systems by Light
SATO, Shinichi	Laboratory for Chemistry and Life Science, Institute of Innovative Research, Tokyo Institute of Technology	Site-selective Antibody Chemical Modification Using Photocatalyst-proximity Labeling Reaction
SATO, Shinichi	Kyoto University	Live-cell Imaging of Multiple Endogenous mRNAs with Dhort RNAs and Small Molecules
SHOJI, Osami	Nagoya University	Use of Decoy Molecules to Trick Cytochrome P450s
TAKEZAWA, Yusuke	Graduate School of Science, The University of Tokyo	Development of Cu(II)-responsive DNAzymes by Introducing a Metal-mediated Artificial Base Pair
TAKI, Masayasu	Nagoya University, ITbM	Super-photostable Organelle Markers for Super-resolution Imaging
TAMURA, Tomonori	Kyoto University, Graduate School of Engineering	Organelle-selective Lipid Labeling and Dynamic Imaging in Living Cells
TSUKIJI, Shinya	Department of Life Science and Applied Chemistry, Nagoya Institute of Technology	Chemical Tools for Controlling Protein Localization in Living Cells
TSUTSUMI, Hiroshi	Tokyo Institute of Technology	Functionalized Supramolecular Peptide Hydrogels for 3D Culture of Cancer Cells
UCHINOMIYA, Shohei	Graduate School of Pharmaceutical Sciences, Kyushu University	Live-cell Imaging of Activity of Fatty Acid Beta Oxidation Pathway with a Fluorescent Probe
WAKABAYASHI, Rie	Department of Applied Chemistry, Kyushu University	Size- and Morphology-controlled Co-assembly of Peptide Amphiphiles and Small Molecules for Intracellular Delivery