

Poster Program

*15 minutes per talk

Monday, March 1, 2021 (Day 1)

13:00-14:30 JST | 23:00 (Feb 28)-00:30 EST | 20:00-21:30 PST (Feb 28) | 5:00-6:30 CET

Group A

- A-1** *In situ* genome sequencing
Paul Reginato (Massachusetts Institute of Technology, USA)
- A-2** An integrative approach toward the Planarian Promoter Nucleosome Architecture
Reza Bagherzadeh (Gakushuin University, Japan)
- A-3** Redefinition of Promoters and Super-enhancers Ranked by Histone H4
Hyperacetylation Identifies Transcription Factors Involved in Glioblastoma Stemness
Nando Dulal Das (RIKEN Center for Biosystems Dynamics Research, Japan)
- A-4** DNA replication machinery contributes to development of eye in *Drosophila*
Hidetsugu Kohzaki (Shumei University, Japan)
- A-5** Competition-based scaling of two pronuclei enables epigenetic maintenance in zygotes
Hirohisa Kyogoku (Kobe University, Japan)
- A-6** Structure of RNA polymerase bound with transcription termination factor Rho
Yuko Murayama (RIKEN Center for Biosystems Dynamics Research, Japan)

Group B

- B-1** Role of the IgE variable heavy chain in FcεRIα and superantigen binding in allergy and immunotherapy
Samuel Ken-En Gan (Experimental Drug Development Centre, A*STAR, Singapore)
- B-2** Deep neural network models to predict ion channel inhibitors with pre-learning of activity information of analogous proteins
Tomohiro Sato (RIKEN Center for Biosystems Dynamics Research, Japan)
- B-3** Development of FMODB and analysis of the inter- and intramolecular interaction data of biomolecules
Daisuke Takaya (RIKEN Center for Biosystems Dynamics Research, Japan)
- B-4** Development of drug discovery support technology: inter- and intramolecular interaction analysis by fragment molecular orbital (FMO) calculation
Chiduru Watanabe (RIKEN Center for Biosystems Dynamics Research, Japan)

Poster Program

- B-5 Activity cliff for 7-substituted pyrrolo-pyrimidine inhibitors of HCK explained in terms of predicted basicity of the amine nitrogen**
Hitomi Yuki (RIKEN Center for Biosystems Dynamics Research, Japan)
- B-6 Interaction-Induced and Motility-Induced Phase Separation in a Lattice Model**
Kyosuke Adachi (RIKEN Center for Biosystems Dynamics Research, Japan)

Group C

- C-1 *In Vitro* Reconstitution of the Wolffian Duct Using Human Pluripotent Stem Cells**
Junichi Taniguchi (RIKEN Center for Biosystems Dynamics Research, Japan)
- C-2 Tracking S-shape body formation towards understanding the mechanism of nephron maturation**
Olena Trush (RIKEN Center for Biosystems Dynamics Research, Japan)
- C-3 Niche-Specific Regulation of MET Events within Kidney Organoids**
Rio Noto (RIKEN Center for Biosystems Dynamics Research, Japan)
- C-4 Recapitulating ventral hindgut development generates bladder organoids from human pluripotent stem cells**
Kazuhiro Ofuji (RIKEN Center for Biosystems Dynamics Research, Japan)
- C-5 FGF10 and testosterone are required for primary prostate induction in mouse embryo**
Wataru Uno (RIKEN Center for Biosystems Dynamics Research, Japan)

14:30-15:15 JST | 00:30-01:15 EST | 21:30-22:15 PST (Feb 28) | 6:30-7:15 CET
Break

15:15-16:30 JST | 01:15-2:30 EST | 22:15-23:30 PST (Feb 28) | 7:15-8:30 CET

Group A

- A-7 A minimal model to understanding heterogeneous dynamics in live cell nucleosomes**
S.S Ashwin (Nagoya University, Japan)
- A-8 Multi-scale architecture of archaeal chromosomes**
Naomichi Takemata (Kyoto University, Japan)
- A-9 Role of nuclear membrane protein Bqt4 for the regulation of the nucleolus position and volume in fission yeast**
Masaru Ueno (Hiroshima University, Japan)

Poster Program

- A-10 HiC1Dmetrics: Using 1D metrics to describe different structure from Hi-C data**
Jiankang Wang (Institute for Quantitative Biosciences, The University of Tokyo, Japan)
- A-11 Evolution of the core fold in RNA polymerase from ancient simple peptide**
Sota Yagi (RIKEN Center for Biosystems Dynamics Research, Japan)

Group B

- B-7 Liquid Crystal Peptide/DNA Coacervates in the Context of Prebiotic Molecular Evolution**
Tony Z. Jia (Tokyo Institute of Technology, Japan)
- B-8 Lifespan and motility analysis of *C.elegans* expressing C-terminal fragments of ALS-causative TDP-43**
Yidan Lyu (Graduate School of Life Science, Hokkaido University, Japan)
- B-9 Liquid-liquid phase separation as organising principle in self-assembly of spider silk**
Ali D. Malay (RIKEN Center for Sustainable Resource Science, Japan)
- B-10 Role of ions on solubility and self-assembly of repetitive domain of spider dragline silk protein**
Nur Alia Oktaviani (RIKEN Center for Sustainable Resource Sciences, Japan)
- B-11 Liquid droplet enhances enzyme activity of L-lactate oxidase**
Tomoto Ura (RIKEN Center for Biosystems Dynamics Research, Japan)

Group C

- C-6 Understanding cell origin and the developmental signals during mammalian bladder development**
Filip Jos Wymeersch (RIKEN Center for Biosystems Dynamics Research, Japan)
- C-7 A Study of the Mechanism of the Glomerular Vascularization *in vitro***
Kensuke Yabuuchi (RIKEN Center for Biosystems Dynamics Research, Japan)
- C-8 Non-monotonic fluidization generated by fluctuating edge tensions in confluent tissues**
Takaki Yamamoto (RIKEN Center for Biosystems Dynamics Research, Japan)
- C-9 A single-cell transcriptome approach to investigate the mechanism of mesoderm lineage-specification using human iPSCs**
Wei Zhao (RIKEN Center for Biosystems Dynamics Research, Japan)

Tuesday, March 2, 2021 (Day 2)

13:00-14:15 JST | 23:00 (March 1)-00:15 EST | 20:00-21:15 PST (March 1) | 5:00-6:15 CET

Group A

- A-12 Structural basis for Rac activation by the ELMO1-DOCK5 bipartite guanine exchange factor**
Mutsuko Kukimoto-Niino (RIKEN Center for Biosystems Dynamics Research, Japan)
- A-13 Regulation of Actin Dynamics by Phosphoinositides**
Yosuke Senju (Okayama University, Japan)
- A-14 A specific eIF4A paralog facilitates LARP1-mediated translation repression during mTORC1 inhibition**
Yuichi Shichino (RIKEN Cluster for Pioneering Research, Japan)
- A-15 Structural and biochemical analysis for translation regulatory protein from baculovirus**
Daijiro Takeshita (National Institute of Advanced Industrial Science and Technology (AIST), Japan)

Group B

- B-12 Molecular Dynamics of Dietary Poly Unsaturated Fatty Acids on Positive Allosteric Modulatory Domains of Vitamin D Receptor and its Consequential Effects on Skeletal Muscle Glucose Homeostasis**
Balaji Hari (JSS Academy of Higher Education and Research, JSS College of Pharmacy, India)
- B-13 Analysis of structural changes on E1/E2 transition of SR-Ca²⁺-ATPase using molecular dynamics simulations**
Chigusa Kobayashi (RIKEN Center for Computational Science, Japan)
- B-14 MDGRAPE-4A: a special purpose computer for molecular dynamics simulations**
Gentaro Morimoto (RIKEN Center for Biosystems Dynamics Research, Japan)
- B-15 DNA translocases reposition a nucleosome by the unwrap-shift-rewrap mechanism**
Fritz Nagae (Kyoto University, Japan)
- B-16 Structural and functional characterization of *de novo* designed membrane coiled-coil peptide channels**
Ai Niitsu (RIKEN Cluster for Pioneering Research, Japan)

Group C

Poster Program

- C-10 Cryo-EM structure of the photosynthetic RC-LH1-PufX supercomplex at 2.8 Å resolution**
Laura Bracun (RIKEN Center for Biosystems Dynamics Research, Japan)
- C-11 Engineering of pore-forming toxin: Grafting the transmembrane region of staphylococcal two-component hemolysin to one-component hemolysin**
Nouran Ghanem (RIKEN Center for Biosystems Dynamics Research, Japan)
- C-12 Crystal structure of ABC heme exporter**
Tamao Hisano (RIKEN Center for Biosystems Dynamics Research, Japan)
- C-13 Structural changes in Cl- pump rhodopsin by time-resolved crystallography**
Toshiaki Hosaka (RIKEN Center for Biosystems Dynamics Research, Japan)
- C-14 Heme toxicity and its detoxification by an ABC-type efflux pump in Gram-positive pathogenic bacteria**
Hiro Nakamura (RIKEN Center for Biosystems Dynamics Research, Japan)
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Group A

- A-16 Mapping the Conformational Dynamics of Spike Protein in SARS-Cov-2**
Hisham M. Dokainish (RIKEN Cluster for Pioneering Research, Japan)
- A-17 Molecular dynamics study of the dimeric SARS-CoV-2 main protease with 7 HIV inhibitors**
Teruhisa S. Komatsu (RIKEN Center for Biosystems Dynamics Research, Japan)
- A-18 Cryptic pockets in glycosylated SARS-CoV-2 spike proteins**
Lorena Zuzic (Agency for Science, Technology and Research Singapore, Singapore)
- A-19 Dynamics of a stochastic coronavirus (COVID-19) epidemic model with Markovian switching**
Mohamed El Khalifi (Ibn Tofail University, Morocco)

Group B

- B-17 Dimensionality reduction of macromolecular dynamics using UMAP**
Mao Oide (RIKEN Cluster for Pioneering Research, Japan)

Poster Program

- B-18** **Developments and Applications of Free-Energy Analysis for Protein-Ligand Binding**
Hiraku Oshima (RIKEN Center for Biosystems Dynamics Research, Japan)
- B-19** **Coarse-grained simulations of multiple intermediates along conformational transition pathways of multi-domain proteins**
Ai Shinobu (RIKEN Center for Biosystems Dynamics Research, Japan)
- B-20** **SSBD:database and SSBD:repository - Online Open Resources for Bioimages and Quantitative Data for Biosystems Dynamics**
Hiroya Itoga (RIKEN Center for Biosystems Dynamics Research, Japan)
- B-21** **Self-assembling supramolecular nanostructure complexes constructed from protein nanobuilding blocks**
Ryoichi Arai (Shinshu University, Japan)

Group C

- C-15** **Investigation of the dynamics of GPCR microswitches related to functional selectivity**
Yutaro Ogaeri (RIKEN Center for Biosystems Dynamics Research, Japan)
- C-16** **Cryo-EM structure of the MT₁-G_i signaling complex**
Hiroyuki Okamoto (Graduate school of science, The University of Tokyo, Japan)
- C-17** **Phosphorylation-induced conformation of β 2-adrenoceptor related to arrestin recruitment revealed by NMR**
Yutaro Shiraishi (RIKEN Center for Biosystems Dynamics Research, Japan)
- C-18** **The bidirectional control of the intrinsic frequency of neurons by Na⁺ and K⁺ current around resting potential**
Tetsuya Yamada (The University of Tokyo, Japan)
- C-19** **Structural insights into the selective interaction between type IIa protein tyrosine phosphatase and the neuronal scaffolding protein, Liprin-alpha**
Atsushi Yamagata (RIKEN Center for Biosystems Dynamics Research, Japan)