Symposium

1SDa	June 24 (Mon) 9:00-11:30 (tentative)	<Session Language: Japanese>
Several oral presentations will be chosen from the free papers		
Intrinsic and extrinsic regulation of development		
Organizars: Daichi Kawaguchi (The Univ. of Tokyo), Kyogo Kawaguchi (RIKEN)		
Speakers: Daichi Kawaguchi (The Univ. of Tokyo), Kyogo Kawaguchi (RIKEN), Mototsugu Eiraku (Kyoto Univ.), Shizue Ohsawa (Nagoya Univ.), Jun Hatakeyama (Kumamoto Univ.)		
Timing and order of cell fate decision are intrinsically programmed during development. Although the developmental schedule is precisely determined, mechanisms governing the “timer” have remained largely unclear. This cell intrinsic timer gets feedback from extracellular environments to control organ size and morphogenesis. In this symposium, we will discuss recent advances in our understanding of intrinsic and extrinsic mechanisms regulating cell fate determination.		

1SEa	June 24 (Mon) 9:00-11:30 (tentative)	<Session Language: Japanese>
Oral presentations will NOT be chosen from the free papers		
Thermal Biology: Temperature sensing and cellular function		
Organizars: Naoko Imamoto (RIKEN), Yoshie Harada (Osaka Univ.)		
Speakers: Masato Umeda (Kyoto Univ.), Kohki Okabe (The Univ. of Tokyo), Naoko Imamoto (RIKEN), Reiko Sakaguchi (Kyoto Univ.), Teruaki Taiji (Tokyo Univ. of Agriculture), Motoaki Seki (RIKEN), Atsushi Kuhara (Konan Univ.)		
Temperature affects various physiological functions and is one of the most important factors in homeostasis. Temperature sensing involves proteins, lipids and RNAs, and significance of different temperature sensing system is studied in various species including plants and animals. We discuss and introduce various temperature sensing systems and temperature imaging technique.		

1SDp	June 24 (Mon) 16:45-19:15 (tentative)	<Session Language: Japanese>
Oral presentations will NOT be chosen from the free papers		
Frontier Research on Chemical Communications		
Organizars: Kazuya Kikuchi (Osaka Univ.), Hideaki Kakeya (Kyoto Univ.)		
Speakers: Hideaki Kakeya (Kyoto Univ.), Yoko Yashiroda (RIKEN), Tatsushi Igaki (Kyoto Univ.), Ikuo Tsunoda (Kindai Univ.), Hidekazu Hiroaki (Nagoya Univ.), Kazuya Kikuchi (Osaka Univ),		
Essential roles of natural products as chemical communication molecules among microbes, animals, plants, et cetera have not been fully elucidated. Integrated understanding of various kinds of chemical communications could therefore accelerate functional regulation by utilizing chemical communication molecules. In this symposium, current topics on chemical communication research will be presented and discussed.		

1SEp	June 24 (Mon) 16:45-19:15 (tentative)	<Session Language: Japanese>
Oral presentations will NOT be chosen from the free papers		
Singurality biology		
Organizars: Takeharu Nagai (Osaka Univ.), Kazuki Horikawa (Tokushima Univ.)		
Speakers: Tomonobu M Watanabe (RIKEN), Katsuyuki Shiroguchi (RIKEN), Shuichi Onami (RIKEN), Atsuyoshi Nakamura (Hokkaido Univ.), Hiroko Bannai (JST PRESTO/ RIKEN), Hitoshi Hashimoto (Osaka Univ.), Taku Okazaki (Tokushima Univ.)		
Physiological and pathological cell population often display the abrupt change in their dynamics. Such a critical transition, we call singularity, is believed to be triggered by core reactions involving a small number of cells. In this symposium, we'll discuss how the rare event controls the system dynamics by showing our strategy, theory and biological examples of the singularity-associated phenomena.		

2SBa	June 25 (Tue) 8:45-11:15	<Session Language: Japanese>
Oral presentations will NOT be chosen from the free papers		
New trends of protein science under multimolecular crowding biosystems		
Organizars: Itaru Hamachi (Kyoto University), Akio Ojida (Kyushu University)		
Speakers: Itaru Hamachi (Kyoto Univ.), Akio Ojida (kyushu Univ.), Toru Komatsu (The Univ. of Tokyo), Shinya Tsukiji (Nagoya Institute of Technology), Satoko Akashi (Yokohama City Univ.), Susumu Uchiyama (Osaka Univ.)		
Protein molecules act a variety of functions under multimolecular crowding biosystems like live cells, tissues and whole bodies. We would like to discuss valuable molecular tools and methods for analyzing and controlling proteins localization, structure and functions in such complex natural habitats.		

2SDa	June 25 (Tue) 8:45-11:15	<Session Language: Japanese>
Several oral presentations will be chosen from the free papers		
The homeostatic control of chromosomes		
Organizars: Toru Hirota (Cancer Inst. JFCR), Katsuhiko Shirahige (The University of Tokyo)		
Speakers: Tatsuo Fukagawa (Osaka Univ.), Atsushi Mochizuki (kyoto Univ.), Tetsuji Kakutani (NIG), Arisa Oda (The Univ. of Tokyo), Tomomi Tsubouchi (NIBB), Takehiko Itoh (Tokyo Inst. Tech.)		
Chromosomes are fundamental to all life processes, by providing macromolecular frameworks for multiple genome functions. The MEXT Priority Research Area "Chromosomal Orchestration System" has been aimed to study the integrated functions on chromosomes, which lead to hypothesize that chromosomes are highly plastic, and its structural regulation has overwhelming impacts on cellular/organismal phenotypes. This symposium will focus on the homeostatic control of chromosomes that confers plasticity, and discuss how might they contribute to cellular evolution and pathology.		

2SEa	June 25 (Tue) 8:45-11:15	<Session Language: Japanese>
Several oral presentations will be chosen from the free papers		
Regulation of transcription in the context of chromatin and nuclear structdures		
Organizars: Noriko Saitoh (The Cancer Instit. of JFCR), Hidetoshi Kono (QST)		
Speakers: Hidetoshi Kono (QST), Yuma Ito (Tokyo Inst. of Tech.), Takahiro Sakaue (Aoyama Gakuin Univ.), Saori Takahashi (RIKEN), Tomoya Kujirai (The Univ. of Tokyo), Tetsuya Handa (Tokyo Inst. of Tech.),		
Genes are regulated at various levels of chromatin. At molecular level, factors which change post-translational modifications of chromatin have been identified. At cellular level, domain organization of chromatin in the nucleus have been recognized to be deeply relevant to gene activity. In this symposium, we focus on the regulation of transcription through multiple layers of chromatin and nuclear structures.		

2SDp	June 25 (Tue) 16:30-19:00	<Session Language: Japanese>
Several oral presentations will be chosen from the free papers		
New frontier of ubiquitin research – from phase separation to small-molecule degraders		
Organizar: Yasushi Saeki (Tokyo Metropo. Inst. of Med. Sci.)		
Speakers: Sayaka Yasuda (Tokyo Metropol. Inst. Med. Sci.), Daichi Morimoto (Kyoto Univ.), Yusuke Sato (The Univ. of Tokyo), Shoshiro Hirayama (The Univ. of Tokyo), Fuseya Yasuhiro (Kyoto Univ.), Norihito Shibata (NIHS), Takumi Ito (Tokyo Medical Univ.)		
Ubiquitylation is an important post-translational modification that regulates almost all cellular functions, but there are still many mysteries on ubiquitin. In this symposium, we will introduce novel ubiquitin studies such as phase separation of ubiquitin, recognition and spatio-temporal regulation of ubiquitylated proteins, and targeted protein degradation methods by small compounds.		

2SEp	June 25 (Tue) 16:30-19:00	<Session Language: Japanese>
Oral presentations will NOT be chosen from the free papers		
Challenges for investigating cellular diversity in the living system		
Organizars: Etsuo A. Susaki (The Univ. of Tokyo), Ryohei Katayama (JFCR)		
Speakers: Atushi Muroi (Kanagawa Cancer Ctr. Res. Inst.), Hiroo Ueno (Kansai Medical Univ.), Ryohei Katayama (JFCR), Kazuhide Watanabe (RIKEN), Yuichiro Nakajima (Tohoku Univ.), Etsuo A. Susaki (The Univ. of Tokyo)		
The aim of this symposium is to introduce researches toward the analysis and regulation of cellular diversity in the living system. We will particularly focus on the three viewpoints as 1) the analysis at the molecular level, 2) the analysis at the cell population level, 3) the analysis at the organ and the organism level of cellular diversity in the normal and disease states.		

3SBa	June 26 (Wed) 8:45-11:15	<Session Language: English>
Several oral presentations will be chosen from the free papers		
Resonance between cell biology and new imaging modalities		
Organizar: Michiyuki Matsuda (Kyoto Univ.)		
Speakers: Yuri E. Korchev (Imperial Col. London), Hidekazu Tsutsui (JAIST), Kenta Terai (Kyoto Univ.), Satoshi Iwano (RIKEN), Yuko Mimori-Kiyosue (RIKEN)		
Progress of cell biology depends strongly on the inventions in imaging. New modalities widen the scale of imaging below Abbe limit and over the mouse size. We hope the audiences will envisage new discovery in their research area by the resonance between cell biology and new imaging modality.		

3SEa	June 26 (Wed) 8:45-11:15	<Session Language: English>
Oral presentations will NOT be chosen from the free papers		
Proteins Controlling Membranes: Morphogenesis, Interaction and Fusion		
Organizars: Shuh-ichi Nishikawa (Niigata University), Tomoko Igawa (Chiba University)		
Speakers: Tomoko Igawa (Chiba Univ.), Hitoshi Nakatogawa (Tokyo Inst. of Tech.), Shuh-ichi Nishikawa (Niigata Univ.), Benjamin Podbilewicz (Technion-Israel Inst. Tech.), Shiro Suetsugu (Nara Inst. Sci. Tech.), Gavin James Wright (Wellcome Sanger Inst.)		
Recent advances in our understanding of various biological processes including autophagy, cell fusion and fertilization, especially in mechanisms of membrane interactions, largely depend on identification and analyses of proteins functioning as key players in these processes. In this symposium, speakers from various research fields will present their recent findings on how proteins control membrane morphogenesis, interaction or fusion steps from inside or outside of cells.		

3SFa	June 26 (Wed) 8:45-11:15	<Session Language: English>
Oral presentations will NOT be chosen from the free Papers		
Precisely controlled reaction mechanism of membrane proteins revealed by the forefronts of experimenta and theoretical sciences		
Organizars: Michi Suga (Okayama University), Jina-Ren Shen (Okayama University)		
Speakers: Minoru Kubo (Univ. of Hyogo), Shigehiko Hayashi (Kyoto Univ.), Radostin Danev (The Univ. of Tokyo), Michi Suga (Okayama Univ.), Hiroshi Ishikita (The Univ. of Tokyo), Wenda Wang (Institute of Botany, CAS)		
Membrane proteins play essential roles in the biological system such as photosynthesis, respiration and membrane transport. In this symposium, the world-leading researchers from experimental and theoretical sciences will have stimulating and fruitful presentations about how the forefronts have brought new insights into the precisely controlled reaction mechanisms of membrane proteins.		