## 'MBSJ2023 Best Science Pitch Award' Awardees

Presentation No	Presenter Name	Affiliation	Title
1SP-01-06	Ryusei Yoshida	Dept. of Mol. Biol., Grad. Sch. of Pharm. Sci., Kyushu Univ.	Analysis for the mechanism of bidirectional replicative helicase loading in bacteria
1SP-01-10	Mayu Terakawa	Dept. of Biol. Sci., Grad. Sch. of Sci., Kyoto Univ.	Single-molecule fluorescence imaging of condensin and pre-replication complexes on DNA curtains
1SP-02-08	Kenta Echigoya	Lab. of Chromatin Struc. & Func., IQB, Univ. of Tokyo/Dept. of Biol. Sci., Grad. Sch. of Sci., Univ. of Tokyo	Structural and genomic analyses of chromatin binding by DEK
1SP-02-11	Reia Shikimachi	Grad. Sch. of Med. Life Sci., YCU	Evaluation of UHRF1 interaction for different 3 types of nucleosomes
1SP-02-17	Ken Murakami	Inst. Prot. Res., Osaka Univ.	Detection of enhancer activity at the single-cell level by deep learning method
1SP-03-04	Rinko Nakamura	NIBB/Sch. of Life Sci., SOKENDAI,	Mechanisms regulating Clr4 histone methyltransferase activity in fission yeast
1SP-03-15	Itsuki Abe	Dept. of Life Sci. Front., CiRA, Kyoto Univ./Grad. Sci. of Med., Kyoto Univ.	Protein splicing enables the high target-cell specificity of a synthetic circuit composed of multiple RNA switches
1SP-04-11	Hayato Ito	Dept. of Life Sci. and Technology, Tokyo Tech	Reconstitution of C9orf72 GGGGCC Repeat Associated Non-AUG translation with purified human translation factors
1SP-04-13	Yuishin Kosaka	Division of Applied Life Sciences, Graduate School of Agriculture, Kyoto University/Japan Society for the Promotion of Science	Reconstitution and characterization of ribosome biogenesis in vitro
1SP-05-04	Osamu Takenouchi	Laboratory for Chromosome Segregation, Center for Biosystems Dynamics Research, RIKEN	Size-Dependent Behavior of Individual chromosomes in meiosis revealed by Genome Visualization Technology
1SP-05-08	Tomohiro Nobeyama	Pure and Appli.Sci., Univ.Tsukuba	Synthesis of Butterfly-like Shape Gold Nanomaterial: For the Regulation of Liquid-liquid Phase Separated Bio-macromolecule Droplets
1SP-05-10	Hiro Takakuwa	Inst. for Genet. Med., Hokkaido Univ./Grad. Sch. of FBS., Osaka Univ.	Shell protein composition specified by NEAT1 domains dictates the paraspeckle segregation from nuclear speckles
1SP-06-03	Daiki Kitamura	Genetics, Grad. Sch. of Biostudies, Kyoto Univ.	Genetic analysis of the control of ribosomal protein levels in Drosophila
1SP-06-08	Shunnosuke Honda	Dept. of Physiol. Chem., Grad. Sch. of Pharm. Sci., Univ. of Tokyo	Development of a FRET-based indicator for Caspase-2 activation to visualize stress response by centrosome amplification
1SP-07-04	Taiki Nishino	Dept. of Clin. Lab. Sci., Div. of Health Sci., Kanazawa Univ.	Physiological analysis of mitochondrial dysfunction using Timm13 mutant zebrafish
1SP-07-13	Koyuki Kawamura	Dept. of Synth&Bio Chem., Grad. Sch. of Eng., Kyoto Univ.	Reduction of intracellular Mg2+ by minimized expression of PRL leads to apoptosis via activating NF- $\kappa$ B pathway
1SP-07-14	Taiki Higuchi	RIMD, Osaka Univ.	Intercellular tension-driven cell competition ensures robust Wnt morphogen gradient formation
1SP-07-16	Itsuma Nagao	WSU/Univ. of Tokyo	Co-Culture of Living Bacteria With Canine Intestinal Epithelium In a Canine Gut-on-a-Chip Microfluidic Device
1SP-08-16	Bhim Biswa	Graduate Institute for Advanced Studies, SOKENDAI, Mishima, Shizuoka, Japan/Mouse Genomics Resource Laboratory, National Institute of Genetics, Mishima, Shizuoka, Japan	Changes in the gut microbiome associated with domestication of mice
1SP-08-17	Seika Takayanagi-Kiya	Div. of Life Sci., Grad. Sch. of Nat. Sci. & Tech., Kanazawa Univ.	A conserved immediate early gene Hr38/Nr4a regulates long-term memory in dopamine neurons of Drosophila melanogaster
1SP-09-03	Koichi Hashizume	Dept. of Biochem. Cell. Biol., NCNP	Mechanisms of mTOR signaling regulation dependent on neuronal cell adhesion and its association with diseases
1SP-09-12	Jun Yamamoto	Dept. of Neuro. Pharm., Grad. Sch. of Pharm. Sci., Nagoya City Univ.	Sleep regulation by the dorsal lateral neurons in Drosophila melanogaster
1SP-10-03	Riho Saito	Dept. of Pharm., Grad. Sch. of Pharm. Sci., Univ. of Tokyo	Transcriptional state of circulating neutrophils as a prediction factor for the survival fate upon lethal viral infection

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1SP-10-05	Ittetsu Takahashi	Dept. of Intr Mem Dyn., Grad. Sch. of Front Biosci., Osaka Univ.	Autophagy independent function of ATG-18/WIPI in longevity
1SP-11-05	Natsuki Takai	Grad. Sch. Biost., Kyoto Univ.	Acidic environments transform mouse melanoma cells into a dormant state tolerant to glucose starvation and an anti-cancer drug
1SP-11-15	Tatsuya Kometani	Dept. Nutritional Science and Food Safety, Tokyo University of Agriculture/Lab. of Cancer Cell Systems, National Cancer Center Research Institute	Development of a novel co-culture system to mimic the characteristics of pancreatic ductal adenocarcinoma in vitro
1SP-11-16	Takuma Suzuki	Tokyo Univ. of Pharm. and Life Sci.	Augmentation of anti-tumor effects of receptor-retargeted oncolytic herpes simplex virus (RR-oHSV) through introduction of syn mutations
2SP-01-07	Yuma Hanai	NAIST, Biological Science	High-throughput knock-in system mediated by homology-independent repair
2SP-01-15	Shota Amano	Grad. Sch. of Bio., Kyoto. Univ./ IMS., RIKEN.	The novel Alu retrotransposition assay system using an EGFP reporter cassette
2SP-02-10	Taichi Shiraishi	Div. of Biol. Sci., Grad. Sch. of Sci., Nagoya Univ./Dept. of Mol. and Cell. Biol., MIB, Kyushu Univ.	Expansion of proteome world by Non-AUG initiation codons
2SP-02-18	Yuki Kanda	Dept. of Bioche. and Mol. Biol., Fac. of Med., Univ. of Tokyo	In vivo autophagic flux evaluation by a microplate reader and tissue imaging in mouse
2SP-03-04	Tsubura Kuramochi	Sch. of Sci. and Tech., Kwansei Gakuin Univ./FRIS, Tohoku Univ.	Elucidating the molecular mechanism by which PDI family guide the folding of proinsulin
2SP-03-16	Shingo Tamai	Grad. Sch. of Med. & Dent. Sci., TMDU/Lab. for Protein Conformation Diseases, RIKEN CBS	Physiological effects by charge-dependent structural dynamics of fuzzy coat region in Alzheimer's disease-fold Tau filaments
2SP-04-03	Hiroaki Kobayashi	Sch. of Life Sci., Facul. of Med., Tottori Univ.	Application of chromosome engineering technology (5):Development of a method for chromosome cloning from human iPS cells by genome editing
2SP-04-11	Kyota Hamashima	Dept. of Biol. Sci., Grad. Sch. of Sci. and Tech., Kumamoto Univ.	Isolation of Cells and Tissues from Sacoglossan Sea Slugs Harboring Plant-Derived Chloroplasts: Unraveling the Evolutionary Mechanisms of Kleptoplasty, a Unique Trait among Sacoglossans
2SP-05-13	Yutaro Yamada	Lab. of Health Chem., Grad. Sch. of Pharmaceut. Sci., Tohoku Univ.	Novel induction mechanisms of Bax/Bak-independent apoptosis induced by the tumor suppressor kinase LKB1
2SP-05-17	Mashun Onishi	Max Planck Institute for Biology of Ageing	Loss of the mitochondrial protease YME1L protects against ferroptosis partly via upregulation of GPX4
2SP-06-01	Kensuke Yamashita	Dept. of Biol., Grad. Sch. of Sci., Univ. of Toho	Manipulation of developmental timer to determine the onset of multicellular formation
2SP-06-12	Sumito Matsuya	Vet. Dev. Bio., Univ. of Yamaguchi	Establishment and characterization of iPS cells in African pygmy mouse(Mus minutoides)
2SP-07-07	Mayuko Endo	Grad. Sch. of Pharm. Sci., Nagoya Univ.	Investigation of the mechanism by which rocking culture promotes epidermal differentiation in three-dimensional culture system
2SP-07-08	Ryota Koike	Amphibian Research Center, Grad. Sch. of Integ. Sci. Life., Hiroshima Univ.	Functional analysis of a zinc finger protein that promotes the formation of neural tissue in Xenopus embryos
2SP-07-11	Manato Sunamoto	Dept. of Life Sci., Sch. of Agri., Meiji Univ.	Complement alternative pathway contributes to the intrauterine spermicidal activity in mice
2SP-08-04	Yuki Fujisawa	Dept. of Regen. Sci., Grad. Sch. of Med., Univ. of Okayama	Development of three-dimensional cultured cartilage tissue for transformation using human iPS-derived chondrocyte progenitors and tissue engineering techniques
2SP-08-19	Amanda Sugawara	Dept. of Lif. Sci. Med. Bio Sci., Grad. Sch. of Adv. Sci. Eng., Waseda Univ.	Identifying Mesenchymal Stem Cell's Therapeutic Effect on Kidney Injury
2SP-09-05	Wakana Harigai	Unit. Grad. Sch. of Child Dev., Osaka Univ.	Effects of Fecal Microbiota Transplantation on behavioral abnormality in attention deficit hyperactivity disorder (ADHD)-like model rat
2SP-09-12	Riku Takahashi	Stem Cell Project, Tokyo Metropol. Inst. Med. Sci., Grad. Sch. of Tokyo Medical and Dental Univ.	Intracellular transport of double-stranded DNA by CXCL14 and Ig superfamily protein

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2SP-10-06	Tamasa Araki	Dept. of Parasitol., NIID.	Transgenic Plasmodium cynomolgi reporter line expressing GFP-Luciferase to track liver-stage growth and dormancy
2SP-10-15	Eilma Akter	Dept. of Biol. Sci., Grad. Sch. of Biol. Sci., Tokyo Univ. of Sci.	Functional analysis of autophagic vesicles that regulate cell competition
3SP-01-02	Ryota Wagatsuma	Grad. Sch. Adv. Sci. Eng., Waseda Univ./CBBD-OIL, AIST- Waseda Univ.	Development of methods for the acquisition and analysis of single-virus genome to elucidate environmental viral diversity
3SP-01-10	Takao Onojima	Sch. of Life Sci. and Tech.	Identification of sex-specific region in the genome of Cladonema radiatum (Cnidaria, Hydrozoa)
3SP-02-12	Naofumi Funagura	Dept. of Med. Cell. Biol., Inst. of Mol. Embryol. Genet. Univ. of Kumamoto/Dept. of Ophthalmol., Fac. of Life Sci., Univ. of Kumamoto	Lysine-specific demethylase Kdm7a regulates M1/M2 macrophage balance
3SP-02-17	Marina Azuma	Grad. Sch. of FBS, Univ. of Osaka/Dept. of Biol., Fac. of Sci., Univ. of Toho	Exploring the Role of Genomic Imprinting in Mouse Brain
3SP-03-06	Shun Umemoto	Dept. of Biomol. Eng., Grad. Sch. of Eng., Nagoya Univ.	Improvement of the diversity of monobody and macrocyclic peptide libraries in mRNA display technology
3SP-03-13	Hiroki Futatsusako	CiRA, Kyoto Univ.	Analysis of viral genome in the BF.5-infected persistent COVID-19 patient
3SP-04-10	Takaaki Kobayashi	Dept. of Biol. Sci., Grad. Sch. of Sci., Univ. of Tokyo	Cryo-EM structures reveal the mechanisms of human vitamin C transporter SVCT1
3SP-04-14	Xiaotong Wang	Dept. of Life Sci. & Appl. Chem., Grad. Sch. of Eng., Nagoya Inst. of Tech.	Development of synthetic motifs that deliver small molecules and peptides to the inner leaflet of the plasma membrane
3SP-05-03	Kosei Ogawa	Dept. of Biol. Sci., Grad. Sch. of Sci. and Tech., Kumamoto Univ.	Lipid droplet-based storage and release of the anti-cancer small molecule aclarubicin
3SP-05-07	Tomoki Ishibashi	RIKEN BDR	Cell chirality induces collective rotation via the left-right asymmetric formation of lamellipodia and focal adhesions
3SP-06-03	Sonoko Mizuno	Grad. Sch. of Biostudies., Kyoto Univ.	The role of Pri micropeptides in epithelial invagination
3SP-06-16	Rieko Asai	UCSF, CVRI	Coupling and uncoupling of midline morphogenesis and cell flow in amniote gastrulation
3SP-09-08	Yuki Otani	Dept. of AI Systems Medicine, DSC, TMDU/Grad. Sch. of Med.&Dent., TMDU	Development of the next-generation drug discovery Al trained on microbiology for infectious disease
3SP-09-16	Yuka Hasegawa	Dept. of Nutr. Physiol., Inst. of Biomed. Sci., Grad school of Tokushima Univ.	Elucidation of the mechanisms underlying muscle integrity supported by heterogeneity of mesenchymal progenitors
3SP-09-17	Chika Takahashi	RIKEN BDR	The effects of juvenile housing conditions (single- and group-housing) on growth speed and lifespan in African turquoise killifish
3SP-10-13	Kouta Nakamura	Diagnostics and Therapeutics of Intractable Diseases, Intractable Disease Research Center, Graduate School of Medicine, Juntendo University Juntendo Univ	Identification of novel mitochondrial disease-causing genes through deep intronic variant exploration
3SP-10-17	Yuxin Wu	Sys. Eng. and Sci., Grad. Sch. of Eng. and Sci., Shibaura Inst. of Tech.	The mechanism of neuronal differentiation by MK-4 via metabotropic glutamate receptors
3SP-11-09	Yusuke Kato	RIKEN BDR/Grad. Sch. Biostudies, Kyoto Univ.	Dissecting the regulatory mechanisms of blood metabolism in Aedes aegypti
3SP-11-16	Hinako Shimura	Intercell. Commun. Med. Sci. , RCAST.,Univ. of Tokyo/Dept. of Life Sci.,Grad. Sch. of Life Sci., Tokyo Tech	Effects of placenta-derived exosomes on maternal changes during pregnancy