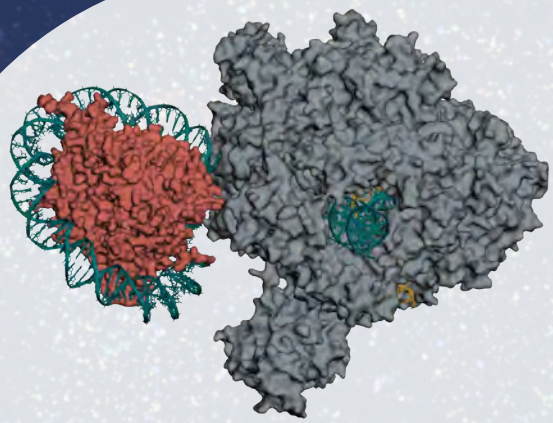
THE 35TH HOT SPRING HARBOR INTERNATIONAL SYMPOSIUM

Cell Fate Code in Development and Differentiation

Joint meeting with

Single Molecules & Chromatin in Japan



Programme

25-27 November 2026

Collabo-Station I | 2F Auditorium

Maidashi Campus, Kyushu University | Fukuoka, Japan

5th Symposium of the Medical Research Center Initiative for High Depth Omics

HOST

Medical Institute of Bioregulation, Kyushu University

SUPPORTED BY

The Nakatani Foundation

Co-organisers and co-organising programmes

Grant-in-Aid for Transformative Research Areas (A), "Cell Fate Code"
AMED Advanced International Collaborative Research Program (ASPIRE): 2nd Japan-UK joint research meeting
MEXT Medical Research Center Initiative for High Depth Omics
4D System Development and Regeneration Science Initiative (MEXT Coalition of Universities for Research Excellence Program, CURE)

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The 35th Hot Spring Harbor International Symposium: Cell Fate Code in Development and Differentiation

Single Molecules & Chromatin in Japan

25-27 November 2026 | Kyushu University, Fukuoka, Japan

All times are Japan Standard Time (JST, UTC+9).
Standard oral presentation slots include 5 minutes for Q&A.
MIB and selected Short Talks: 10 minutes for presentation and 3 minutes for questions and changeover.

Bell signals: 1 bell two minutes before the talk ends; 2 at the end of the talk; 3 at the end of Q&A.
Oral presentations are listed in numerical order (O1-O47). Poster IDs are P1-P48; P24 is withdrawn.

Wednesday, 25 November - afternoon | Registration & Doors Open: 12:00

13:00-13:05		Opening

25 Nov | S1 | Single-Molecule Signalling and Transcription Dynamics

Chair: Hiroshi Kimura

13:05-13:35 30 min	**O1**	**Kieran Harvey** | Peter MacCallum Cancer Centre / Monash University Hippo signalling at single molecule resolution
13:35-14:00 25 min	**O2**	**Takashi Fukaya** | The University of Tokyo Transvection dynamics resolve proximity requirements for enhancer-promoter communication
14:00-14:25 25 min	**O3**	**Hiroshi Ochiai** | Medical Institute of Bioregulation, Kyushu University Spatial and temporal perspectives on chromatin and transcription
14:25-14:55 30 min	**O4**	**Scott Berry** | University of New South Wales Spare polymerases and spare parts: two-tiered buffering of human transcription
14:55-15:10		Coffee break

25 Nov | S2 | Nuclear Architecture and Epigenome Regulation

Chair: Tatsuro Takahashi

15:10-15:30 20 min	**O5**	**Kazuo Yamagata** | Kindai University Conditions for Nuclear Formation in Mouse Oocytes Revealed by Artificial Nucleus Reconstitution
15:30-15:50 20 min	**O6**	**Naoki Horikoshi** | The University of Tokyo Structural insights into nuclear envelope integrity
15:50-16:10 20 min	**O7**	**Fumihito Miura** | The University of Tokyo Toward EpiOME-Seq: Overlaying Multiple Epigenomes on the Methylome
16:10-16:30 20 min	**O8**	**Norifumi Shioda** | Kumamoto University G-quadruplexes in neuronal function and neurodegenerative diseases
16:30-16:45		Coffee break / planned online connection check

25 Nov | S3 | Senescence, Genome Activation and Epigenetic Inheritance

Chair: Makoto Tachibana

16:45-17:15 30 min	**O9**	**Masashi Narita** (online from the UK) | Cancer Research UK Cambridge Institute, University of Cambridge Chromatin Architecture in Senescence and Beyond
17:15-17:35 20 min	**O10**	**Kei Miyamoto** | Kyushu University Nuclear softening and plasticization for zygotic genome activation in mice
17:35-18:05 30 min	**O11**	**Yuanliang Zhai** | The Hong Kong University of Science and Technology Parental histone recycling caught at replication forks

Thursday, 26 November - morning

09:00-09:05		Opening

26 Nov | J1 | Transcription Dynamics and Spatial Cell-Fate Mapping

Chair: Takashi Fukaya

09:05-09:30 25 min	**O12**	**Hiroshi Kimura** | Institute of Science Tokyo Developing Stable Modification-specific Intracellular Antibodies using AI-Tools to Track Epigenetic Modification and Transcription in Vivo
09:30-10:00 30 min	**O13**	**Mathias Francois** | The University of Sydney When binding modes become a cycle: The SOX2 clockwork at the Nanog locus
10:00-10:30 30 min	**O14**	**Zhe Liu** | Johns Hopkins University Decoding Cell Fate in 3D with Deep-Tissue Spatial Multi-Omics
10:30-10:40		Coffee break

26 Nov | J2 | Chromatin Architecture and Cell-State Regulation

Chair: Hiroshi Ochiai

10:40-11:10 30 min	**O15**	**Alexey Terskikh** | The University of Western Australia (UWA) Global chromatin organisation in single cells predicts function and ageing.
11:10-11:35 25 min	**O16**	**Yasuyuki Ohkawa** | Medical Institute of Bioregulation, Kyushu University Histone loss and the remodeling of the chromatin landscape with age
11:35-12:00 25 min	**O17**	**Hitoshi Kurumizaka** | The University of Tokyo / Medical Institute of Bioregulation, Kyushu University Mechanisms by Which Chromatin Architecture Regulates Genome Function
12:00-13:00		Lunch break

Thursday, 26 November - afternoon and evening

13:00-13:05		Symposium opening

26 Nov | H1 | Genome Organisation and Chromatin Regulation

Chair: Yukako Hattori

13:05-13:35 30 min	**O18**	**Jop Kind** | Hubrecht Institute Building an inverted genome organization
13:35-13:55 20 min	**O19**	**Shigehiro Kawashima** | The University of Tokyo Toward Synthetic Epigenetics: Designing Synthetic Molecules to Decode and Engineer Chromatin
13:55-14:15 20 min	**O20**	**Tatsuro Takahashi** | Kyushu University Replication-coupled responses to O6-methylguanine in chromatin
14:15-14:28 13 min	**O21**	**Yuki Miyazaki** (MIB Short Talk) | Medical Institute of Bioregulation, Kyushu University Exploring balancing selection in the human genome through trans-species polymorphism
14:28-14:48		Coffee break

26 Nov | H2 | Chromatin Regulation and Immune Cell Identity

Chair: Naoki Horikoshi

14:48-15:08 20 min	**O22**	**Yukako Hattori** | Kyoto University Heterochromatin-mediated transcriptional constraint stabilizes development under fluctuating nutritional conditions
15:08-15:21 13 min	**O23**	**Shinichiro Sawa** (MIB Short Talk) | Medical Institute of Bioregulation, Kyushu University A hierarchical Rorc(γt) cis-regulatory cascade orchestrates differentiation of RORγt+ innate immune cells
15:21-15:46 25 min	**O24**	**Yukiko Gotoh** | The University of Tokyo Epigenetic safeguard of cellular identity
15:46-15:59 13 min	**O25**	**Keisuke Imabayashi** (MIB Short Talk) | Medical Institute of Bioregulation, Kyushu University Uncovering pathogenic B cells in autoimmunity
15:59-16:12 13 min	**O26**	**Megumi Sato** (Selected Short Talk) | Graduate School of Systems Life Sciences, Kyushu University MutSα controls the directionality of Smarcad1-mediated nucleosome remodeling
16:12-16:32		Coffee break

26 Nov | H3 | Cell-State Regulation in Brain and Disease

Chair: Kazuo Yamagata

16:32-16:52 20 min	**O27**	**Minako Ito** | Medical Institute of Bioregulation, Kyushu University Immune Regulation of Brain Development and Function
16:52-17:05 13 min	**O28**	**Shota Yamamoto** (MIB Short Talk) | Medical Institute of Bioregulation, Kyushu University A cell-type-resolved lipidomic atlas of brain glia reveals distinct lipid identities
17:05-17:30 25 min	**O29**	**Noriko Saitoh** | Medical Institute of Bioregulation, Kyushu University Chromatin-associated non-coding RNAs in breast cancer recurrence
17:30-17:43 13 min	**O30**	**Atsushi Doi** (MIB Short Talk) | Medical Institute of Bioregulation, Kyushu University From single molecules to cell–cell communication: mapping HBV DNA-positive cells and their neighbors with ArcScape
17:43-17:56 13 min	**O31**	**Tetsuya Handa** (Selected Short Talk) | Medical Institute of Bioregulation, Kyushu University Mutant p53 converts a shared interferon-stimulated gene programme into a context-dependent fitness cost in normal human fibroblasts.
17:56-18:15		Move to the reception venue
18:15-19:15		Reception
19:15-20:45		Poster session | Odd-numbered posters: 19:15-20:00 | Even-numbered posters: 20:00-20:45

Friday, 27 November

27 Nov | H4 | Genome Activation in Early Development

Chair: Tatsuya Takemoto

09:00-09:30 30 min	**O32**	**Kikuë Tachibana** | Max Planck Institute of Biochemistry The E3 ubiquitin ligase RNF4 triggers zygotic genome activation by relieving Groucho/TLE1-mediated repression
09:30-09:55 25 min	**O33**	**Makoto Tachibana** | The University of Osaka Dynamic regulation of H3K9 dimethylation drives mouse minor zygotic genome activation
09:55-10:25 30 min	**O34**	**Wei Xie** | Tsinghua University Transcription regulation in early mammalian development
10:25-10:40		Coffee break

27 Nov | H5 | Epigenetic Inheritance and Developmental Transitions

Chair: Hitoshi Kurumizaka

10:40-11:10 30 min	**O35**	**Jerome Jullien** | INSERM The Epigenetic Programming Potential of Modified Histones Retained in Human Sperm
11:10-11:35 25 min	**O36**	**Jun-ichi Nakayama** | National Institute for Basic Biology Genome-wide analysis of histone modifications in spores and dormant cells
11:35-11:55 20 min	**O37**	**Masamitsu Sato** | Waseda University Integrative NGS analyses of single-cell RNA-seq and ATAC-seq reveal chromatin remodelling upon dormancy breaking at spore germination
11:55-12:15 20 min	**O38**	**Tomonori Nakamura** | Kyoto University A pan-developmental atlas for early lineage specifications in primates
12:15-12:45		Group photograph (move and assemble from 12:15): Atrium, 1F, Collabo-Station II
12:45-13:45		Lunch break

27 Nov | H6a | Tissue Patterning and Regeneration

Chair: Jun-ichi Nakayama

13:45-14:05 20 min	**O39**	**Tatsuya Takemoto** | Tokushima University The transcriptional regulation of the Tbx6 gene to elucidate the mesoderm development from the neuro-mesodermal progenitors
14:05-14:18 13 min	**O40**	**Mizuho Ishikawa** (MIB Short Talk) | Medical Institute of Bioregulation, Kyushu University Topography-driven spatial patterning of epidermal stem cells in a 3D skin model using a micropatterned collagen scaffold
14:18-14:31 13 min	**O41**	**Bailey Robert Hiles-Murison** (Selected Short Talk) | University of New South Wales Inferring the transcriptional mechanisms underlying mRNA homeostasis from live-cell transcription reporters
14:31-14:46		Coffee break

27 Nov | H6b | Regeneration, Fibrosis and Cell Identity

Chair: Kosuke Tomimatsu

14:46-15:06 20 min	**O42**	**Akane Kawaguchi** | National Institute of Genetics Multi-layered epigenetic regulation balancing tissue regeneration
15:06-15:19 13 min	**O43**	**Yoshiaki Sakaguchi** (MIB Short Talk) | Medical Institute of Bioregulation, Kyushu University Novel cell therapy for liver fibrosis using human iHepPCs
15:19-15:32 13 min	**O44**	**Akiyoshi Uezumi** (MIB Short Talk) | Medical Institute of Bioregulation, Kyushu University MSC heterogeneity in skeletal muscle
15:32-15:47		Coffee break

27 Nov | H7 | Gene Regulation, Aging and Cellular Homeostasis

Chair: Noriko Saitoh

15:47-16:17 30 min	**O45**	**Emily Wong** | Victor Chang Cardiac Research Institute A multi-layer organisation of chromatin ageing separates persistence from plasticity
16:17-16:30 13 min	**O46**	**Beomju Hwang** (MIB Short Talk) | Medical Institute of Bioregulation, Kyushu University Insulin delivery and Akt isoform-specific decoding generate organ-specific insulin signaling in the liver and skeletal muscle
16:30-16:43 13 min	**O47**	**Hiroshi Kadokura** (MIB Short Talk) | Medical Institute of Bioregulation, Kyushu University Role of the multi-pass transmembrane protein LMF1 in mammalian ER redox homeostasis
16:43-16:53		Closing remarks
16:53-17:00		End-of-meeting allowance (meeting ends by 17:00)

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Poster Presentations

Thursday, 26 November (JST) | Odd-numbered posters: 19:15-20:00 | Even-numbered posters: 20:00-20:45

Poster rooms open at 08:00 JST on 26 November.
Please mount your poster on the board marked with your assigned poster number. Please remove it after the poster session on 26 November.

ID	Presenter and Poster Title
P1	**Haruki Abe** | Kyushu University Molecular mechanism of MutSβ-dependent mismatch repair in chromatin
P2	**Nikko Adhitama** | The University of Osaka Chromatin regulation of sexually dimorphic doublesex1 expression in the freshwater crustacean Daphnia magna
P3	**Ryutaro Aonuma** | Waseda University Relationship between Chromatin Remodeling and Transcriptional Activation During Dormancy Breaking in Fission Yeast Spores
P4	**Scott Berry** | University of New South Wales Polycomb-based epigenetic memory underlies the irreversibility of p16-mediated cell cycle exit
P5	**Kan Etoh** | Graduate School of Medical Sciences / Kyushu University FOXF1/2-mediated enhancer remodeling is required for senescence-associated secretory phenotype
P6	**Farzana Ferdousi** | Kyushu University Cross-species transcriptomic clocks link molecular ageing to lifespan in the turquoise killifish
P7	**Takeru Fujii** | Kyushu University Reconstructing epigenomic dynamics through a single-cell multi-epigenome data integration framework and 3D genome structure inference
P8	**Xiaohui Gao** | Kyushu University Local histone acetylation signals and regulatory factors during transcriptional bursting at individual genes
P9	**Natsuki Goto** | Kyushu University Effect of skeletal muscle-specific Pdgfa deficiency on muscle tissue and neuromuscular junctions
P10	**Shuaichi Guo** | Kyushu University Role of β2-Adrenergic Receptors in Mesenchymal Stromal Cells for Skeletal Muscle Maintenance
P11	**Tetsuya Handa** | Kyushu University Mutant p53 converts a shared interferon-stimulated gene programme into a context-dependent fitness cost in normal human fibroblasts.
P12	**Qilei He** | Kyushu University NOTCH2 signaling promotes HUVEC-to-induced hepatic progenitor cell reprogramming
P13	**Bailey Robert Hiles-Murison** | University of New South Wales Inferring the transcriptional mechanisms underlying mRNA homeostasis from live-cell transcription reporters
P14	**Kazunori Hojo** | The University of Tokyo Polycomb complexes prime tissue-specific enhancers in early organogenesis
P15	**Kenichi Horisawa** | Kyushu University Decoupling of transcriptional and metabolic responses to regenerative signals in the aged liver
P16	**Yifan Huangfu** | Kyushu University AlphaFold 3 Screening for Haplotype-Resolved Protein-Protein Interaction Prioritization

Poster Presentations (continued)

Thursday, 26 November (JST) | Odd-numbered posters: 19:15-20:00 | Even-numbered posters: 20:00-20:45

ID	Presenter and Poster Title
P17	**Manato Iizuka** | The University of Tokyo Molecular Mechanisms of Chromatin Regulation at the Nuclear Periphery
P18	**Koyo Ikeda** | Kyushu University Epigenetic profiling from a single mouse embryo using chromatin integration labeling followed by sequencing, ChIL-seq
P19	**Harunobu Kagawa** | Nantes University Reconstructing Early Human Development: Cell Fate Specification and Self-Organization in Stem Cell-Based Models
P20	**Youna Katanosaka** | Medical Institute of Bioregulation, Kyushu University Undulating topography promotes epidermal differentiation and spatially patterned proliferation in a 3D skin culture model
P21	**Koji Kinoshita** | Kyushu University ID4 regulates hepatic fatty acid synthesis through chromatin accessibility of the Srebf1 promoter
P22	**Yasuyuki Kishikawa** | Kyushu University Identification of novel transcripts and analysis of isoform regulation during spermatogenesis in adult mice
P23	**Chaebeen Ko** | Kyushu University Live-cell single-locus imaging of active and repressive histone-mark signals across transcriptional states
P24	**Withdrawn**
P25	**Kazushige Kuroha** | Yokohama City University Stepwise post-transcriptional regulation accompanies epigenomic remodeling during spermatogonial fate commitment
P26	**Taichi Matsubara** | Kyushu University GPU-accelerated quantum-classical learning for nucleotide-resolution prediction of transcription factor binding
P27	**Yasuki Miyagawa** | Kyushu University Nuclear deformation in mouse 2-cell embryos affects positioning of ZGA gene loci
P28	**Manabu Nakazono** | Kyushu University Small-molecule-mediated repair and formation inhibition of CPD in double-stranded DNA
P29	**Ikuto Nishikawa** | Kyushu University Epidermal stem cell compartments shape spatial immune organization in the skin
P30	**Azumi Ohki** | Kyushu University Spatiotemporal dynamics of replication-coupled maintenance DNA methylation
P31	**Akihisa Osakabe** | Chiba University Sequence-specific anti-silencing activity mediated by the transposon-encoded factor, VANC
P32	**Sakura Ouchi** | Kyushu University The Role of SPCA1 in Golgi Ca^{2+} homeostasis and secretory function

Poster Presentations (continued)

Thursday, 26 November (JST) | Odd-numbered posters: 19:15-20:00 | Even-numbered posters: 20:00-20:45

ID	Presenter and Poster Title
P33	**Changmin Park** | Kyushu University Nucleosome dynamics during O6-methylguanine processing by mismatch repair
P34	**Junjie Peng** | Kyushu University Genome-wide analysis of age at onset in a Japanese ALS cohort and cross-ancestry interpretation of population-specific signals
P35	**Xiaolin Qian** | Kyushu University Structural basis of copper shuttling by the human Golgi-resident copper ion transporter ATP7A
P36	**Hasan Raslan** | Kyushu University Direct Reprogramming of Spinal Cord Microglia into Induced Neurons: A Potential Strategy for Treatment of Spinal Cord Injury.
P37	**Megumi Sato** | Kyushu University MutSα controls the directionality of Smarcad1-mediated nucleosome remodeling
P38	**Takuro Shioi** | The University of Tokyo Structural Characterization of Chromatin Remodeling Intermediates in Homologous Recombination
P39	**Shuto Machida** | Kyushu University Assigning maternal and paternal origin to long-read haplotypes from methylation at known imprinted regions
P40	**Hiroki Sugishita** | The University of Tokyo Polycomb establishes TAD-scale H3K27me3 mega-domains to safeguard neuronal identity
P41	**Yinrui Sun** | Kyushu University Chromosome-scale genome assembly of habu, Protobothrops flavoviridis, reveals the evolution of venom protein genes
P42	**Minori Suzuki** | Kyushu University Generation and Application of the Myoc-CreERT2 Mouse for the Specific Manipulation of Skeletal Muscle MSCs
P43	**Yueyi Tang** | Kyushu University Analysis of Genetic Factors Contributing to Cancer Recurrence Risk
P44	**Eisho Tanida** | Institute for Quantitative Biosciences/The University of Tokyo Structural analysis of CENP-A nucleosomes isolated from human cells by cryo-EM
P45	**Shin-ichi Tomizawa** | Yokohama City University Temperature-sensitive erosion of epigenetic priming in spermatogonial stem cells
P46	**Daisuke Tsuchimoto** | Kyushu University Guanylate kinase 1 is an indispensable enzyme for the biosynthesis of inosine triphosphate in mammals
P47	**Shinpei Yamaguchi** | Toho University Parthenogenetic Cell Replacement Reveals the Role of Parental Genomes in Brain Development
P48	**Liting Yu** | Kyushu University Epigenetic remodeling of chromatin architecture in dental pulp stem cells induced by an etiological stimulus of biliary atresia

Programme corrections and enquiries: hshs2026@bioreg.kyushu-u.ac.jp