

Oral Program

December 1

- 10:00 - 10:35 Morphogenesis and growth of skeletal muscles in vertebrates.
Jérôme Gros, Marie Manceau, Martin Scaal, Virginie Thomé and Christophe Marcelle.
Laboratoire de Génétique et de Physiologie du Développement (LGPD).
Developmental Biology Institute of Marseille (IBDM). CNRS UMR 6545.
Université de la Méditerranée.. Campus de Luminy, case 907. 13288 Marseille
Cedex 09. France
- 10:35 - 11:00 Winching Retinal Histogenesis by Wnt
Shinichi Nakagawa
Nakagawa Initiative Research Unit, RIKEN, Wako 351-0198, Japan
- 11:00 - 11:25 Biological noise and coherent oscillation in the segmentation clock
Kazuki Horikawa and Hiroyuki Takeda
Department of Biological Science, Graduate School of Science, University of
Tokyo, Hongo 7-3-1, Tokyo 113-0033, Japan.
- 11:25 - 11:50 Guidance of Neuronal Migration by the Ependymal Flow in the Adult Brain
Kazunobu Sawamoto
Bridgestone Laboratory of Developmental and Regenerative Neurobiology and
Department of Physiology, Keio University School of Medicine, Tokyo
160-8682, Japan
- 13:30 - 14:05 Muscle cell morphogenesis and migration in the zebrafish somite
Sharon Amacher, University of California, Berkeley
- 14:05 - 14:40 Regulation of the Notch/RBP-J Signaling by Mint, a Functional Homologue of
Drosophila Hairless
Tasuku Honjo
Department of Immunology and Genomic Medicine, Kyoto University Graduate
School of Medicine
- 14:40 - 15:05 Patterning of dorsal aorta is segmentally regulated and involves directed
migration of endothelial precursors
Yoshiko Takahashi^{1,2}, Tadayoshi Watanabe^{1,2}, and Yuki Sato²
1, Department of Biosciences, NAIST, Nara, Japan
2, Center for Developmental Biology, RIKEN, Kobe, Japan
- 16:30 - 16:55 Cellular and molecular mechanism of cell-sheet folding process in inversion of
Volvox embryo
Ichiro Nishii
Nishii Initiative Unit, RIKEN, Wako, Saitama, Japan
- 16:55 - 17:20 INTERACTIONS AMONG THE PIGMENT CELLS GENERATES THE
TURING PATTERN IN THE SKIN OF ZEBRAFISH
Shigeru Kondo, Nagoya University, Japan
- 17:20 - 17:55 Neurogenesis and boundary formation in hindbrain segmentation
Nikolas Nikolaou, Marc Amoyel, Yi-Chuan Cheng and David Wilkinson,
Division of Developmental Neurobiology, National Institute for Medical
Research, London, UK.

December 2

- 9:00 - 9:25 The segmentation clock generates metameric patterns in mouse development
Yasumasa Bessho
Graduate School of Biological Sciences, Nara Institute of Science and Technology (NAIST), Japan
- 9:25 - 10:00 Neural guidance receptors in Angiogenesis
Anne Eichmann, Inserm U36, Collège de France, Paris
- 10:00 - 10:25 The role of Groucho-associated transcriptional repressor Ripply1 during somite development
Shinji Takada^{1, 2}, Sumito Koshida^{1, 2}, Hiroko Hijikata², Hisato Kondoh^{2, 3} & Akinori Kawamura^{1, 2}
¹ Okazaki Institute for Integrative Biosciences /NIBB, ² ERATO JST, ³ Osaka University
- 10:45 - 11:10 From lens induction to functional genomics in *Xenopus*
Hajime Ogino and Robert M. Grainger
Department of Biology, University of Virginia, U.S.A
- 11:10 - 11:35 A mechanism of somite segmentation: Mesp2 establishes a segmental boundary and somite patterning by suppressing Notch signaling
Yumiko Saga (National Institute of Genetics, Mishima, Japan)
- 11:35 - 12:00 Twisting of neocortical progenitor cells underlies springiness-dependent daughter-cell migration
Takaki Miyata
Anatomy and Cell Biology, Nagoya University Graduate School of Medicine
- 13:30 - 14:05 Boundaries and Compartments in the Developing Brain
Andrew Lumsden
MRC Centre for Developmental Neurobiology, King's College London, England.
- 14:05 - 14:30 The role of Pax6 transcription factor in cortical development
Noriko Osumi
Division of Developmental Neuroscience, Department of Functional Genomics, Center for Translational and Advanced Animal Research, Tohoku University School of Medicine, Japan
- 16:00 - 16:35 *Xenopus tropicalis* as a genetic model system
Mustafa Khokha
Assistant Researcher
Department of Molecular Cell Biology, UC-Berkeley
- 16:35 - 17:00 Notch signal-mediated DNA demethylation regulating the differentiatonal potential of neural stem cells
Masakazu Namihira¹, Jun Kohyama¹, Tetsuya Taga² and *Kinichi Nakashima¹
¹Graduate School of Biological Sciences, Nara Inst. of Science and Technology, Nara, Japan. ²Institute of Molecular Embryology and Genetics, Kumamoto University, Kumamoto, Japan

Poster Program

- P-01 Isolation and characterization of white zebra, a novel zebrafish mutant affecting the segmentation of somites
Takashi Akanuma1) Sumito Koshida1) Yasuyuki Kishimoto2) Akinori Kawamura1) Makoto Furutani-Seiki3) Hisato Kondoh3,4) Shinji Takada1)
1) Okazaki Institute for Integrative Bioscience, National Institutes of Natural Science, Japan
2) National Institute of Genetics, Japan 3) ERATO/SORST, Japan Science and Technology Agency 4) Graduate school of Frontier Biosciences, Osaka University, Japan
- P-02 RETINOIC ACID COOPERATES WITH LIF TO INDUCE ASTROCYTE DIFFERENTIATION OF EMBRYONIC NEURAL STEM CELLS.
Makoto Aonuma, Masakazu Namihira, Hiroki Setoguchi, Jun Kohyama, Kinichi Nakashima
Lab. Mol. Neurosci., Grad. Sch. Biol. Sci., Nara Inst. Sci. Tech., Japan
- P-03 BRUNO-LIKE PROTEIN IS LOCALIZED TO GERM PLASM DURING EARLY CLEAVAGE STAGES IN ZEBRAFISH
Hashimoto, Y. 1), Suzuki H. 2), Kageyama, Y. 1), Yasuda, K. 1), Inoue, K. 3)
1) Nara Institute of Science and Technology, Ikoma, Nara, Japan 2) University of Miami, Miller School of Medicine, Miami, FL, USA 3) Kobe University, Kobe, Japan
- P-04 SCREENING FOR MESSENGER RNA-LIKE NON-CODING RNA IN DROSPHILA
Sachi Inagaki 1), Koji Numata 2), Takehumi Kondo 1), Kunio Yasuda 1), Masaru Tomita2, Akio Kanai 2), Yuji Kageyama 1)
1) Grad. Sch. Biol. Sci. Nara Inst. Sci. Tech. Japan 2) Inst. Adv. Biosci. Keio Univ. Japan
- P-05 NOISE-RESISTANT AND SYNCHRONIZED OSCILLATION OF THE SEGMENTATION CLOCK
Kazuki Horikawa 1) Kana Ishimatsu1) Eiichi Yoshimoto 2) Shigeru Kondo 2) Hiroyuki Takeda 1)
1) Department of Biological Science, Graduate School of Science, University of Tokyo, Japan
2) Division of Biological Science, Graduate School of Science, Nagoya University, Japan
- P-06 THE ZEBRAFISH SECRETED MATRIX PROTEIN YOU/SCUBE2 IS IMPLICATED IN LONG-RANGE REGULATION OF HEDGEHOG SIGNALING
Atsushi Kawakami 1), 4), Yasuhiro Nojima2), 4), Atsushi Toyoda3), 4), Mikako Takahoko2), Miki Satoh2), 4), Hideomi Tanaka2), 4), Hironori Wada2), Ichiro Masai2), 4), Harumi Terasaki1), Yoshiyuki Sakaki3), Hiroyuki Takeda1), and Hitoshi Okamoto2), 4)
1) Department of Biological Science, University of Tokyo, Japan; 2) Laboratory for Developmental Gene Regulation, RIKEN Brain Science Institute, Japan; 3) Sequence Technology Team RIKEN Genomic Sciences Center, Japan; 4) CREST, JST, Japan
- P-07 GROUCHO-ASSOCIATED TRANSCRIPTIONAL REPRESSOR RIPPLY1 IS REQUIRED FOR PROPER TRANSITION FROM THE PRESOMITIC MESODERM TO SOMITES
Akinori Kawamura 1) Sumito Koshida 1), 2) Hiroko Hijikata 2) Akiko Ohbayashi 1) Hisato Kondoh 2), 3) and Shinji Takada 1), 2)
1) Okazaki Institute for Integrative Biosciences, National Institutes of Natural Sciences, Japan
2) Kondoh Differentiation Signaling Project, ERATO/SORST Program, Kondoh Research Team, Japan Science and Technology Corporation, Japan
3) Graduate School of Frontier Biosciences, Osaka University, Suita, Osaka 565-0871, Japan

- P-08 GENE EXPRESSION PROFILING OF THE MESP1, MESP2-DOUBLE-KNOCKOUT EMBRYO TO SEEK THE RESPONSIBLE GENES FOR THE CARDIAC PRECURSOR DEVELOPMENT
Satoshi Kitajima 1), Ken-ichi Aisaki1), Katsuhide Igarashi1), Noriyuki Nakatsu1), Yumiko Saga2), and Jun Kanno1)
 1) National Institute of Health Sciences, Tokyo, Japan
 2) National Institute of Genetics, Mishima, Shizuoka, Japan
- P-09 HESR1 AND HESR2 REGULATE ATRIAL-VENTRICULAR BOUNDARY FORMATION IN THE HEART
Hiroki Kokubo and Yumiko Saga
 Division of Mammalian Development, National Institute of Genetics, Mishima, Japan
- P-10 INTEGRIN α 5-DEPENDENT FIBRONECTIN ACCUMULATION FOR MAINTENANCE OF SOMITE BOUNDARIES IN ZEBRAFISH EMBRYOS
Sumito Koshida 1),2),3) Yasuyuki Kishimoto2),4) Hideko Ustumi1) Toshihiro Shimizu1) Makoto Furutani-Seiki2) Hisato Kondoh2),5) and Shinji Takada1),2),3)
 1) Okazaki Institute for Integrative Bioscience, National Institutes of Natural Sciences, Japan.
 2) ERATO Kondoh Differentiation Signaling Project/SORST Program, Kondoh Research Team, JST, Japan
 3) Department of Molecular Biomechanics, The Graduate University for Advanced Studies (SOKENDAI), Japan
 4) National Institute of Genetics, Japan.
 5) Graduate School of Frontier Biosciences, Osaka Univ., Japan.
- P-11 ROLE OF WNT-2B IN RETINAL CELL DIFFERENTIATION AND STEM CELL MAINTENANCE
Fumi Kubo 1), 2), Masatoshi Takeichi 2), Shinnichi Nakagawa 1)
 1) Nakagawa Initiative Research Unit, RIKEN, Japan
 2) Graduate School of Biostudies, Kyoto University, Japan
- P-12 Analysis of the molecular mechanisms for the somite segmentation clock
Takaaki Matsui 1, Naoki Honda2, Yuichi Sakumura2, and Yasumasa Bessho1
 1Graduate School of Biological Sciences, 2Graduate School of Information Science, Nara Institute of Science and Technology
- P-13 WNT9A REGULATES PROLIFERATION OF HEPATOBLASTS AND MAINTENANCE OF ENDOTHELIAL CELLS IN CHICKEN LIVER DEVELOPMENT
Ken Matsumoto, Rika Miki, Yuji Yokouchi
 Institute of Molecular Embryology and Genetics, 21 Century COE, Kumamoto University, Japan
- P-14 MESP2 ESTABLISHES SEGMENTAL BORDERS BY SUPPRESSING NOTCH ACTIVITY VIA L-FNG ACTIVATION
Mitsuru Morimoto, Yumiko Saga 1)
 1) Division of Mammalian Development, National Institute of Genetics, Mishima, Japan.
- P-15 COMPARATIVE AND EXPERIMENTAL STUDIES ON TURTLE DEVELOPMENT
Hiroshi Nagashima, Shigehiro Kuraku, Ryo Usuda, Shigeru Kuratani
 Center for Developmental Biology, Japan

- P-16 Pigment cell interactions that forms the stripe pattern in the skin of zebrafish
Akiko Nakamasu 1) Kana Bando 3) Akiyoshi Kanbe2) Toyoko Kuno 2) Shigeru Kondo 2)
 1) Ochanomizu University
 2) Nagoya University
 3) RIKEN CDB
- P-17 ROLE OF THE MEK5-ERK5 PATHWAY IN XENOPUS NEURAL DIFFERENTIATION
Satoko Nishimoto, Morioh Kusakabe and Eisuke Nishida
 Department of Cell and Developmental Biology,
 Graduate School of Biostudies, Kyoto University, Kyoto, Japan
- P-18 GLOBAL ANALYSIS OF MESP1 AND MESP2 EXPRESSION VIA BAC TRANSGENIC SYSTEM
Masayuki Oginuma, Yumiko Saga (National Institute of Genetics, SOKENDAI, Mishima, Japan)
- P-19 SDF1 AND ITS RECEPTOR CXCR4 CONTROL CELL MIGRATION AND PATTERNING DURING SOMITOGENESIS
Emi Ohata 1)2), Toshiharu Kasai 2), Takashi Nagasawa 3), Yoshiko Takahashi 1)2)
 1) Graduate School of Biological Science, Nara Institute of Science and Technology, Japan
 2) Center for Developmental Biology, RIKEN, Japan
 3) Institute for Frontier Medical Science, Kyoto University, Japan
- P-20 MIGRATORY BEHAVIORS OF ADRENOMEDULLA-FATED NEURAL CREST CELLS ARE INSTRUCTED BY THE ADRENOCORTICAL CELLS
Daisuke Saito 1) and Yoshiko Takahashi 2)
 1) NAIST, Nara, Japan; 2) Center for Developmental Biology, RIKEN, Kobe, Japan.
- P-21 Activation of Notch in the posterior compartment of a somite determines the differentiation, directed migration, and patterning of the dorsal aorta precursors
Sato, Y 1, Watanabe, T2, Kohyama 21, 3, Okano, H3, Takahashi, Y1, 2
 1Center for Developmental Biology, RIKEN, Kobe, Japan
 2Nara Institute of Science and Technology, Nara, Japan
 3Keio Univ. School of Medicine, Tokyo, Japan
- P-22 Pax2 is sufficient to convert a presomitic mesoderm to intermediate mesoderm to form kidney tubules
Suetsugu Rinako 1), Watanabe Tadayoshi 2), Takahashi Yoshiko 1), 2)
 1) Center for Developmental Biology, RIKEN, Kobe, Hyogo, Japan
 2) NAIST, Nara, Japan
- P-23 GERM CELL LINEAGE BEHAVES DIFFERENTLY FROM SOMATIC STEM CELLS DURING THE REGENERATION OF ENCHYTRAETUS JAPONENSIS, AN OLIGOCHAETE WORM THAT UNDERGOES BOTH ASEXUAL AND SEXUAL REPRODUCTION
Ryosuke Tadokoro 1), 2) Mutumi Sugio 3) Shin Tochinnai 3) and Yoshiko Takahashi1) ,2)
 1) CDB, RIKEN, Kobe, Japan 2) NAIST, Nara, Japan 3) Hokkaido Univ., Sapporo, Japan
- P-24 RE-EXAMINATION OF PHENOTYPES IN SOMITOGENESIS OF MESP2-NULL MICE AND MESP2-DLL3 KNOCK-IN MICE
Yu Takahashi 1) Satoshi Kitajima 1) Yukuto Yasuhiko 1) Jun Kanno 1) Yumiko Saga 2)
 1) National Institute of Health Sciences, Tokyo, Japan
 2) National Institute of Genetics, Mishima, Shizuoka, Japan

- P-25 CADHERIN REGULATES DENDRITIC MORPHOGENESIS OF RETINAL HORIZONTAL CELL.
Koji Tanabe 1),2) Masatoshi Takeichi 2),3) and Shinichi Nakagawa 1)
1) Nakagawa Initiative Research Unit, RIKEN, Japan 2) Graduate School of Biostudies, Kyoto University, Japan 3) Laboratory for Cell Adhesion and Tissue Patterning, RIKEN CDB, Japan
- P-26 DETECTION AND TRACKING IN VIDEO SEQUENCES OF MULTIPLE MESODERMAL CELLS IN THE CHICK EMBRYO
Jean-Christophe Terrillon and Guojun Sheng
Laboratory for Early Embryogenesis, Center for Developmental Biology (CDB), Riken Kobe Institute, Japan
- P-27 MOLECULAR CASCADE LEADING TO MORPHOLOGICAL SEGMENTATION DURING SOMITOGENESIS; EPHRIN-EPH SIGNALING AT DOWNSTREAM OF NOTCH AND CMES01
Tadayoshi Watanabe 1), Yuki Sato 2), Jun Kohyama 3), Hideyuki Okano 3), Yoshiko Takahashi 1), 2)
1) Nara Institute of Science and Technology, Japan
2) Center for Developmental Biology RIKEN, Japan
3) Keio University, Japan
- P-28 TBX6 CONTROLS MESP2 EXPRESSION IN FORMING SOMITES
Yukuto Yasuhiko1), Seiki Haraguchi2), Yu Takahashi1), Jun Kanno1), Yumiko Saga3)
1) National Institute of Health Sciences, Tokyo, Japan
2) University of Cambridge, Cambridge, UK
3) National Institute of Genetics, Mishima, Shizuoka, Japan
- P-29 PHOTORECEPTOR CELLS FROM MOUSE EMBRYONIC STEM CELLS BY CO-CULTURE WITH CHICK EMBRYONIC RETINA
Yuko Sugie1), Masahide Yoshikawa2), Yukiteru Ouji2), Kei Moriya2), Ko Saito2), Shigeaki Ishizaka2), Toyoaki Matsuura1), Yoshikaki Nawa1), Yoshiaki Hara1)
1)Dept. of Ophthalmology, Nara Medical University, Japan.
2)Division of Developmental Biology, Dept. of Parasitology, Nara Medical University, Japan.
- P-30 VEIN PATTERN VARIATIONS IN *Orosanga japonicus* INSECT WINGS
Eiichi Yoshimoto 1) Shigeru Kondo 1)
1) Division of Biological Science, Graduate School of Science, Nagoya University, Japan