

Scientific Programs

Plenary Lectures

June 4 (Thu) 9:00-11:30 Room A

Chairperson: Hidetoshi Saiga (Tokyo Metropolitan Univ.)

PL-01 09:00-09:50



From genomes to diversity: gene duplication, developmental biology and animal evolution

○Peter W.H. Holland (Department of Zoology, University of Oxford)

The discovery of developmentally-important genes paved the way for a science in which embryonic development could be compared between divergent evolutionary lineages at the molecular level. A picture has emerged of highly conserved genes orchestrating developmental processes, with fundamental and shared molecular mechanisms dating back to the dawn of bilaterian animals or even earlier. Yet there is a danger in this view of evolution and development. Overemphasizing similarities between species can lead us to ignore the differences. One common way in which developmentally-important genes can change in evolution is by gene duplication, to generate small families of very similar genes or to spawn more divergent new genes. I will describe how gene duplication has contributed to the functional evolution of Hox, ParaHox and other homeobox genes, using examples from insects, molluscs and vertebrates. Even within groups of genes as generally conserved as homeobox genes, duplication leads to genetic diversity that ultimately contributes to organismal diversity in evolution.

Chairperson: Yoshiko Takahashi (Kyoto Univ.)

PL-02 09:50-10:40



Patterning Mechanisms Underlying Neuro-Vascular Branching Networks

○Yoh-suke Mukouyama (National Heart, Lung, and Blood Institute)

Branching morphogenesis is a fundamental program used by many organ systems to create spatial ramified networks during organogenesis. Research interests in my laboratory focus on understanding how the vascular and nervous systems develop the architectural and stereotypical patterns of tubular branching networks, which are often patterned similarly in peripheral tissues. This complex developmental process requires a series of special cues, which progressively lead to dramatic changes in cell-cell organization. During angiogenesis, a primary capillary network undergoes intensive vascular remodeling and develops into a hierarchical vascular branching network. We have shown that peripheral sensory nerves control arterial branching pattern in the developing skin. This alignment facilitates access to oxygen and nutrients for the nerves. At the molecular level, two distinct mechanisms underlie the congruence of sensory nerve and arterial vessel branching: nerve-derived VEGF-A controlling arterial differentiation, and nerve-derived CXCL12 controlling vessel branching and alignment with nerves. After the hierarchical vascular network is thoroughly

covered with mural cells such as vascular smooth muscle cells (VSMCs), sympathetic nerves extend along and innervate large vessels to control vascular tone and participate in blood pressure regulation. We have found that in the developing heart, coronary veins serve as an intermediate conduit within the subepicardium that guides distal sympathetic axon projections via local secretion of NGF by coronary VSMCs. These studies demonstrate that a coordinated local action of patterning and differentiation mechanisms underlies organ-specific neuro-vascular branching patterns. The presentation will describe our recent progress towards understanding cellular dynamics and molecular machinery that regulate the correct timing of these guidance and differentiation signals.

Chairperson: Hirokazu Tsukaya (Univ. of Tokyo)

PL-03 10:40-11:30 **Patterning Plant Epidermis: Cell Fate and Communication**



○Keiko U. Torii (Howard Hughes Medical Institute and Department of Biology, University of Washington)

Multicellular organisms produce complex tissues with specialized cell types for functionality. Our group is interested in understanding the molecular mechanism of how a cell constituting a multicellular organism communicates with each other to execute decision-making processes. Specifically we are focusing on stomatal patterning on developing epidermis as a model for two-dimensional spatial patterning for its simplicity, accessibility, and availability of molecular-genetic and imaging tools. Stomatal patterning occurs according to positional cues and requires critical cellular decision-making steps of whether or not to become stomata. During development of photosynthetic organs, a selected population of undifferentiated protodermal cells undergoes asymmetric cell divisions that initiate the stomatal cell lineage. A stomatal precursor cell reiterates asymmetric cell division and eventually differentiates into guard cells. Recent progress by our group and others has led to the discovery of key molecules and pathways controlling stomatal patterning and differentiation: Sequential and combinatorial actions of five bHLH transcription factors specifying stomatal precursor cell state transitions; A ligand-receptor system enforcing frequency and orientation of asymmetric cell division, and; Intrinsic polarity and cellular constituents that are required for creating and maintaining asymmetry. The next challenge is to understand how these regulatory components are put together in the context of two-dimensional tissue patterning in the plant epidermis. Our recent studies further revealed that signaling components are shared with other developmental and environmental processes. This raises an important question of how individual peptide signal triggers distinct developmental responses using the same receptors and how their biological specificities determined. Combining live imaging, biochemistry, mathematical modeling, and large-scale biology, we seek to unravel multi-scale regulatory mechanisms coordinating stomatal patterning in time and space.

Workshop (in Japanese)

June 2 (Tue) 15:00 ~ 19:05 Room A

15:00-15:05 Opening 1

WS-01 15:05-15:40 TBA
○Shigeo Hayashi (RIKEN CDB)



WS-02 15:40-16:15 Organogenesis in vertebrates~listen to embryo's whisper~
脊椎動物の器官形成 ~細胞の声を聞きながら~
○Yoshiko Takahashi (Grad. Sch. of Sci., Kyoto Univ.)



16:15-16:25 Break

16:25-16:30 Opening 2

WS-03 16:30-17:05 40 years in Regeneration Biology
発生生物学会のあしたのジョーを目指して
○Kiyokazu Agata (Dept. Biophys., Kyoto Univ.)



WS-04 17:05-17:40 TBA
○Hirokazu Tsukaya (Univ. of Tokyo)



17:40-17:50 Break

17:50-17:55 Opening 3

WS-05 17:55-18:30 Logic for epigenetic gene regulation during vertebrate development
脊椎動物の発生におけるエピジェネティック制御のロジック
○Hiroyuki Takeda (Dept. of Biol. Sci., University of Tokyo)



WS-06 18:30-19:05 TBA
○Koji Tamura (Tohoku Univ.)



Chairpersons:



Naoto Ueno
(NIBB)



Hiroshi Wada
(Univ. of Tsukuba)



Makoto Kobayashi
(Univ. of Tsukuba)

Symposia

Symposium 1: New horizon in developmental biology

June 5 (Fri) 9:00 ~ 12:15 Room A

Organizers:



Yoshiko Takahashi
(Kyoto University)



Hiroshi Wada
(University of Tsukuba)

We will hear five speakers who are pursuing original researches in morphogenesis and organogenesis. The topics include neural crest cells, tail development, rotating organ, self-organizing tissues, and hormone-regulated neural network. We will discuss how we explore new horizons in developmental biology, where interdisciplinary studies are critical.

- S01-1** 09:00-09:30 Self-organized formation of complex tissues from stem cells
○Mototsugu Eiraku (RIKEN Center for Developmental Biology)
- S01-2** 09:30-10:00 Neuronal controls of developmental transition via modulating steroid hormone biosynthesis in the fruit fly *Drosophila melanogaster*
ショウジョウバエにおけるステロイドホルモン生合成調節を介した発育タイミングの神経支配
○Yuko Shimada-Niwa¹, Eisuke Imura², Ryusuke Niwa^{1,3} (Faculty of Life and Environmental Sciences, Univ. of Tsukuba¹, Graduate School of Life and Environmental Sciences, Univ. of Tsukuba², PRESTO, JST³)
- S01-3** 10:00-10:50 Gene regulatory network underlying neural crest formation and EMT
○Marianne Bronner (Caltech)
- S01-4** 10:50-11:20 Left-right asymmetric planar cell polarity controls directional epithelial cell migration in *Drosophila*
ショウジョウバエ生殖器の回転形成を制御する細胞平面の左右非対称性
○Erina Kuranaga (Lab Histogenetic Dynamics, RIKEN CDB)
- S01-5** 11:20-11:50 What is the tail?
しっぽを知る
○Yoshiko Takahashi (Grad. Sch. of Sci., Kyoto Univ.)
- 11:50-12:15 Discussion

Symposium 2: Vertebrate brains: Structure, Function and Evolution

June 5 (Fri) 9:00 ~ 12:15 Room B

Organizers:



Koichi Kawakami
(National Institute of Genetics)



Yasunori Murakami
(Ehime University)

The brain is the most complex organ in a vertebrate's body. This symposium aims to discuss how such a complex organ is formed and functions by providing a comparative and evolutionary overview of the vertebrate brain.

- S02-1** 09:00-09:27 The role of Fgf signaling in the developing lamprey pallium
ヤツメウナギの終脳パターンニングにおける FGF シグナルの役割
○Yasunori Murakami (Ehime Univ.)
- S02-2** 09:27-10:00 The Forebrain of Zebrafish – A Radical Paradigm
○Thomas Mueller (KSU)
- S02-3** 10:00-10:27 Functional dissection of the zebrafish telencephalon by the Gal4-UAS approach
Gal4-UAS 法によるゼブラフィッシュ終脳の機能的解剖
○Koichi Kawakami^{1,2}, Pradeep Lal¹, Hideyuki Tanabe¹ (Div. Mol. & Dev. Biol., NIG¹, Dep. Genet., Sokendai²)
- S02-4** 10:27-10:54 Evolution and development of cerebellar neural circuitry in teleosts
真骨魚類における小脳の発生と進化
○Masahiko Hibi^{1,2}, Miki Takeuchi¹, Shingo Yamaguchi², Koji Matsuda², Takuto Hayashi², Yuichiro Hara³, Tetsutaro Hayashi³, Yoshimasa Sakakibara², Masayuki Yoshida⁴, Shigehiro Kuraku³, Takashi Shimizu^{1,2} (BBC, Nagoya Univ.¹, Grad. Sch. Science, Nagoya Univ.², RIKEN CLST³, Grad Sch. Biosphere Sci., Hiroshima Univ.⁴)
- S02-5** 10:54-11:21 Evolution of progenitor dynamics and transcriptional regulation in amniote brains
羊膜類脳における前駆細胞の動態と転写制御機構の進化
○Tadashi Nomura (Dev Neurobiol, Kyoto Pref Univ Med)
- S02-6** 11:21-11:48 Origin of the neurogenetic program in the mammalian neocortex
哺乳類大脳皮質における神経発生プログラムの起源
○Tatsumi Hirata (Div. of Brain Function, Nat'l Inst. of Genetics)
- S02-7** 11:48-12:15 Neuronal fate specification in establishing the neocortex
大脳新皮質構築を担う細胞分化決定機構
Takuma Kumamoto¹, ○Carina Hanashima^{1,2} (RIKEN CDB¹, Dept. Biol., Grad. Sch. Sci., Kobe Univ.²)

Symposium 3: “Decodings” of the mouse by developmental genetics approaches

June 5 (Fri) 9:00 ~ 12:15 Room C

Organizer:



Hiroshi Masuya
(RIKEN BioResource Center)

Mouse has a long history for model organism for genetics studies. In present day, the movement of mouse genetics toward the forefront of modern biomedical researches remarkably contributes the developmental biology, where genetics is used as a tool for unraveling (“decoding”) of system of life which is “coded” by genes and genetic systems. In this symposium, with talks of cutting-edge studies of mouse genetics, I hope audience will find experimental approaches to “decode” biological systems underlies morphogenesis, neurogenesis and evolution.

09:00-09:10 Introduction

- S03-1** 09:10-09:45 Development of CT imaging technology for the mouse phenotyping
Micro-CT イメージングによる高速・高精細マウス表現型解析法の開発
○Masaru Tamura (Tech. Dev. Mouse Phenotyping, RIKEN BRC)
- S03-2** 09:45-10:20 The temporal-codes of neural stem cells underlying the cell diversity and the tumorigenesis in mice
脳細胞の多様性形成および脳腫瘍発生に関わる神経幹細胞の時間特性を生み出す分子メカニズム
○Yoshinobu Sugitani^{1,2}, Reiko Sugitani-Yoshida², Katsuyuki Yaginuma¹, Shigeyasu Nakai¹, Osamu Minowa¹, Masaharu Ogawa², Tetsuo Noda¹ (Cell Biol., JFCR — Cancer Inst.¹, BSI, Riken²)
- S03-3** 10:20-10:55 *tw5* and mouse early embryogenesis: developmental genetics of *t*-complex
tw5 遺伝子とマウス初期発生：*t*-コンプレックスの発生遺伝学
○Kuniya Abe^{1,2}, Karen Artzt³, Michihiko Sugimoto^{1,4} (RIKEN BRC¹, Grad. Sch. Life and Environ. Sci., Univ. Tsukuba², Inst. Cell. Mol. Biol., Univ. Texas at Austin³, Inst. Res. Dev. and Anal., Kumamoto Univ.⁴)
- S03-4** 10:55-11:30 Evolution of a *Shh* endoderm enhancer in the transition from lungs to non-respiratory gas bladder
肺から非呼吸性浮き袋への形態進化に伴った *Shh* エンドダーム エンハンサーの進化
○Tomoko Sagai (Mammal. Genet., Natl. Inst. Genet.)
- S03-5** 11:30-12:05 Forward genetics of sleep in Mice
○Masashi Yanagisawa (International Institute for Integrative Sleep Medicine (WPI-IIIS), University of Tsukuba)

Symposium 4: How do mathematical models contribute to understanding of developmental biology ?

June 5 (Fri) 13:30 ~ 16:45 Room A

Organizers:



Toshihiko Fujimori
(National Institute for Basic
Biology)



Tatsuo Shibata
(RIKEN Center for Developmental
Biology)

We would like to discuss advantages of mathematical approaches to understanding of developmental biology in this session. As you may know most of JSDB members are experimental biologists, and we are not always familiar with mathematical models. Organizers hope that we can provide an opportunity to discuss pros and cons of this type of approaches for the advance in developmental biology with general audience.

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| | 13:30-13:35 | Introduction |
| S04-1 | 13:35-14:05 | Cell lineage tracing in invading cell populations: superstars revealed!
○Kerry Landman ¹ , Bevan Cheeseman ¹ , Ben Binder ² , Dongcheng Zhang ³ , Donald Newgreen ³ (Uni Melb, Australia ¹ , Uni Adelaide, Australia ² , MCRI, Victoria, Australia ³) |
| S04-2 | 14:05-14:35 | Cell shape homeostasis against heterogeneous proliferation in epithelium
細胞増殖の乱れに対する上皮細胞の形の恒常性
Alice Tsuboi ¹ , Shizue Ohsawa ² , Tatsushi Igaki ² , ○Koichi Fujimoto ¹ (Osaka Univ. Dept. of Biol. Sci. ¹ , Kyoto Univ., Grad. Sch. Biostudies ²) |
| S04-3 | 14:35-15:05 | Local increases in mechanical tension guide cell sorting along compartment boundaries by biasing cell intercalations
○Daiki Umetsu (RIKEN CDB) |
| S04-4 | 15:05-15:35 | Mechanics of luminal epithelial fold pattern formation and its relationship to cell geometries in mouse oviduct
マウス卵管における管腔側上皮のヒダの形態パターン形成の力学と細胞の幾何学的形態との関係
○Hiroshi Koyama ^{1,2} , Dongbo Shi ^{1,3} , Kouji Komatsu ^{1,5} , Makoto Suzuki ^{2,4} , Naoto Ueno ^{2,4} , Tadashi Uemura ³ , Toshihiko Fujimori ^{1,2} (Div. Embryology, NIBB ¹ , SOKENDAI ² , Grad. Sch. Biostudies, Kyoto Univ. ³ , Div. Morphogenesis, NIBB ⁴ , Grad. Sch. Med., Nagoya Univ. ⁵) |
| S04-5 | 15:35-16:05 | Reaction-diffusion pattern in shoot apical meristem of plants
植物茎頂分裂組織における反応拡散パターン
○Hironori Fujita (National Institute for Basic Biology) |
| S04-6 | 16:05-16:35 | Mechanism of Scaling in DV-patterning of <i>Xenopus</i> embryo
○Tatsuo Shibata ¹ , Hidehiko Inomata ² (Laboratory for Physical Biology, RIKEN Quantitative Biology Center ¹ , Laboratory for Axial Pattern Dynamics, RIKEN Center for Developmental Biology ²) |
| | 16:35-16:45 | General Discussion & Closing Remarks |

Symposium 5: Topics in plant and animal development

June 5 (Fri) 13:30 ~ 16:45 Room B

Organizers:



Hirokazu Tsukaya
(University of Tokyo)



Hiroki Nishida
(Osaka University)

This symposium is aimed at facilitating communication and discussion between plant and animal developmental biologists to share cutting-edge researches in both fields. We invite established and young researchers who are actively studying to understand developmental phenomena from fertilization to organ formation in the two kingdoms. We hope that the symposium provides a nice opportunity to enhance relationship between plant and animal developmental biologists and to create totally novel field of developmental biology.

Co-organized by: Multidimensional Exploration of Logics of Plant Development, MEXT, Japan

- 13:30-13:45 Introduction
- S05-1** 13:45-14:15 Molecular Control of Gametophyte Development and Fertilization
Lena Müller, Heike Lindner, Sharon Kessler, Michael Raissig, Hiroko Shimosatz-Asano,
°Ueli Grosniklaus (UZH)
- S05-2** 14:15-14:45 Self/nonself-recognition in ascidian fertilization: Common mechanisms with angiosperm self-incompatibility
ホヤの受精における自己非自己認識：被子植物における自家不和合性との共通機構
°Hitoshi Sawada (Sugashima MBL, Grad. Sch. Sci., Nagoya Univ.)
- S05-3** 14:45-15:15 Rootcap derived auxin prepatterns the longitudinal root axis
°Tom Beeckman (PSB-VIB, Ugent)
- S05-4** 15:15-15:45 Birds of a feather: genetics and development of diversity in pigeons
°Michael Shapiro¹, Eric Domyan¹, Anna Vickrey¹, Zev Kronenberg², Mark Yandell² (Biology, Univ. of Utah¹, Human Genetics, Univ. of Utah²)
- S05-5** 15:45-16:15 The endodermis – a tale of two cell types
°Niko Geldner (DBMV, FBM, UNIL)
- S05-6** 16:15-16:45 Evolution and development of the bifurcated axial skeleton in the twin-tail goldfish
二又した尾鰭を持つ金魚の尾部骨格の進化と発生
Gembu Abe, Shu-Hua Lee, Ing-Jia Li, Chun-Ju Chang, °Kinya Ota (Lab of Aquatic Zoology, MRS, ICOB, Academia Sinica)

Symposium 6: Cell-cell interaction in tissue stem cell regulation

June 5 (Fri) 13:30 ~ 16:45 Room C

Organizers:



Hideki Enomoto
(Kobe University)



Hironobu Fujiwara
(RIKEN Center for Developmental Biology)

This symposium introduces cell-cell interactions that play a principal role in regulating the function and maintenance of tissue stem cells.

- S06-1** 13:30-14:09 The role of extracellular matrix heterogeneity in regulating hair follicle stem cell-niche interactions
毛包幹細胞とニッチの相互作用における細胞外マトリックスのヘテロジェネイティの役割
○Hironobu Fujiwara (RIKEN CDB)
- S06-2** 14:09-14:48 Neuronal differentiation from the Schwann cell lineage
シュワン細胞系譜からの神経細胞分化
○Hideki Enomoto (Kobe Univ Grad Sch Med)
- S06-3** 14:48-15:27 Lympho-hematopoietic microenvironment regulated by inter-organ communication
多臓器間ネットワークに支えられる免疫造血環境
○Yoshio Katayama (Hematology, Kobe University Hospital)
- S06-4** 15:27-16:06 What Can We Learn by Exploring the Interstitial Space of Skeletal Muscle during Development and Regeneration?
発生・再生過程に骨格筋内の間葉スペースを研究すると何がわかる?
Fuminori Sato¹, Daigo Nishimura¹, Shinpei Hori¹, Hiroyuki Arai¹, Yosuke Hiramuki¹, Maina Sogabe¹, Mao Kuriki¹, Minyong Choi¹, Zi Wang¹, Atsuo Kawahara², Koichi Kawakami³,
○Atsuko Sehara¹ (Kyoto Univ.¹, Univ. Ymanashi², Nat. Inst. Genet.³)
- S06-5** 16:06-16:45 Creating the kidney in vitro
試験管内で腎臓を創る
○Ryuichi Nishinakamura, Atsuhiko Taguchi (IMEG, Kumamoto Univ.)

Oral Presentations & Flash Talk (in English)

Oral Presentation & Flash Talk 1 : Morphogenesis 1

June 3 (Wed) 9:00 ~ 10:30 Room A

Chairperson:



Yumiko Saga
(NIG)

- OP01-1** 09:05-09:20 The RED domain of Paired is specifically required for *Drosophila* accessory gland maturation
○Li Li¹, Lei Xue^{1,2}, Ping Li¹ (SLST, Tongji Univ¹, Institute of Intervention Vessel, Shanghai 10th People's Hospital²)
- OP01-2** 09:20-09:35 Mesodermal origin of median fin mesenchyme and tail muscle in amphibian larvae
両生類幼生におけるヒレ間充織細胞と尾部筋肉は中胚葉由来である
○Yuka Taniguchi^{1,2}, Thomas Kurth¹, Daniel Meulemans Medeiros³, Akira Tazaki¹, Robert Ramm⁴, Hans-Henning Epperlein^{1,2} (CRTD¹, TU, Dresden², EBIO³, LEBAO, MHH⁴)
- OP01-3** 09:35-09:50 Toward understanding color pattern formation and evolution in *Drosophila* ショウジョウバエの模様形成と進化の理解に向けて
○Shigeyuki Koshikawa¹, Matt Giorgianni², Kathy Vaccaro², Victoria Kassner², John Yoder³, Thomas Werner⁴, Sean Carroll² (Hakubi Center, Kyoto University¹, Howard Hughes Medical Institute², University of Alabama³, Michigan Technological University⁴)
- OP01-4** 09:50-10:05 Somite compartments in amphioxus and the origin of vertebrate mineralized tissues
Tsai-Ming Lu¹, Song-Wei Huang¹, Che-Huang Tung¹, ○Jr-Kai Yu^{1,2} (ICOB, Academia Sinica, Taiwan¹, IONTU, Nat. Taiwan Univ.²)
- OP01-FT1 (P062)** 10:05-10:08 Evolutionary relevance between mating behavior and LR asymmetric rotation of male genitalia in Diptera
双翅目昆虫における生殖行動と雄生殖器の左右非対称な回転の間の進化的な関連
○Momoko Inatomi, Kenji Matsuno (Dept. of Biol. Sci., Grad School of Sci., Osaka Univ.)
- OP01-FT2 (P067)** 10:08-10:11 Efficient embryonic culture method for the Japanese striped snake, *Elaphe quadrivirgata*, and its early developmental stages
シマヘビ胚のステージ表の作成と体外培養法の確立
Yoshiyuki Matsubara¹, Atsushi Sakai², Atsushi Kuroiwa¹, ○Takayuki Suzuki¹ (Div. of Biol. Sci., Nagoya Univ.¹, Japan Snake Institute²)
- OP01-FT3 (P063)** 10:11-10:14 A non-coding sequence conserved specifically in avian lineage acts as a *cis*-regulatory element during wing development
翼の発生過程においてシス制御因子としてはたらく、鳥類特異的ノンコーディング配列の特定
○Ryohei Seki¹, Cai Li², Tomohiko Sato³, Mao Kondo³, Haruka Matsubara³, Daisuke Saito^{3,4}, Shiro Egawa³, Jiang Hu², Luohao Xu², Hailin Pan², Naoki Irie⁵, Guojie Zhang², Koji Tamura³, Toshihiko Shiroishi¹ (Mamm. Genet. Lab., NIG¹, China National Gene-

bank, BGI-Shenzhen², Grad. Sch. of Life Sci., Tohoku Univ.³, Front. Res. Inst. for Interdis. Sci., Tohoku Univ.⁴, Grad. Sch. of Sci., Univ. of Tokyo⁵)

- OP01-FT4 (P029)** 10:14-10:17 P2Y4 receptor is involved in head formation in *Xenopus laevis* embryo
P2Y4 受容体はアフリカツメガエル胚の頭部形成に関連する
○Ayano Harata¹, Haruka Nishida¹, Takashi Yamamoto², Chikara Hashimoto¹ (BRH¹, Department of Mathematical and Life Sciences, Graduate School of Science, Hiroshima University²)
- OP01-FT5 (P044)** 10:17-10:20 Oikoplastic epidermal patterning in the trunk of the appendicularian, *Oikopleura dioica*
ワカレオタマボヤ *Oikopleura dioica* におけるハウス形成表皮細胞のパターン形成
○Kanae Kishi, Momoko Hayashi, Takeshi Onuma, Hiroki Nishida (Osaka University)
- OP01-FT6 (P045)** 10:20-10:23 Internal and external structures of the appendicularian, *Oikopleura dioica*
走査型電子顕微鏡による脊索動物ワカレオタマボヤの外部構造・内部構造の観察
○Takeshi Onuma, Miho Isobe, Hiroki Nishida (Dep. Biol. Sci., Osaka Univ.)

Oral Presentation & Flash Talk 2: Regeneration 1 & Growth 1

June 3 (Wed) 9:00 ~ 10:30 Room B

Chairperson:



Shoen Kume
(Tokyo Tech.)

- OP02-1** 09:05-09:20 LIF Responsiveness confers robust self-renewal of ESCs in conventional context
129 系統由来 ES 細胞における血清条件での安定的な自己複製の遺伝的要因
○Satoshi Ohtsuka, Hideo Niwa (Lab for Pluripotent Stem Cell Studies, CDB RIKEN)
- OP02-2** 09:20-09:35 Analysis of the role of *interleukin 11* in tail regeneration of *Xenopus laevis* tadpoles
アフリカツメガエル幼生の尾再生におけるインターロイキン 11 の役割の解析
○Hiroshi Tsujioka¹, Takekazu Kunieda¹, Yuki Katou², Katsuhiko Shirahige², Takeo Kubo¹ (Dept. Biol. Sci. Grad. Sch. Sci. Univ. Tokyo¹, IMCB Univ. Tokyo²)
- OP02-3** 09:35-09:50 Importance of PIWI inherited by the differentiated cells from the pluripotent stem cells in planarian
プラナリアにおける全能性幹細胞から分化細胞へ継承される PIWI タンパク質の重要性
○Makoto Kashima¹, Haruhiko Siomi², Mikkiko Siomi², Kuniaki Saito², Osamu Nishimura³, Kiyokazu Agata¹, Norito Shibata¹ (DBGSS, Kyoto Univ.¹, DMBSM, Keio Univ.², gCOE, DBS, Kyoto Univ.³)
- OP02-4** 09:50-10:05 Generation of neural crest cells by direct lineage conversion
直接転換法による神経堤細胞の誘導
○Tutomu Motohashi¹, Natsuki Watanabe¹, Masahiro Nishioka¹, Yuhki Nakatake²,

Minoru Ko², Naoki Goshima³, Takahiro Kunisada¹ (RAMS, Gifu Univ.¹, Department of Systems Medicine, Sakaguchi Laboratory, Keio University School of Medicine², Molecular Profiling Research Center for Drug Discovery, National Institute of Advanced Industrial Science and Technology³)

- OP02-5** 10:05-10:20 Efficient induction of presomitic mesodermal cells from human iPSCs
ヒト iPS 細胞から未分節中胚葉細胞の効率的な分化誘導
○Taiki Nakajima¹, Mitsuaki Shibata¹, Satoru Takayama¹, Makoto Fukuta¹, Hidetoshi Sakurai¹, Junya Toguchida^{1,2,3}, Makoto Ikeya¹ (Center for iPS Cell Research and Application, Kyoto University¹, Department of Tissue Regeneration, Institute for Frontier Medical Sciences, Kyoto University², Department of Orthopaedic Surgery, Graduate School of Medicine, Kyoto University³)
- OP02-FT1 (P053)** 10:20-10:23 Zebrafish model revealed the pathogenesis of POLR1C Type 3 Treacher Collins Syndrome
○Ernest ML Kwong, William KF Tse (Dept. of Biol., HKBU)
- OP02-FT2 (P131)** 10:23-10:26 Differential roles for the H3K27 methylase and demethylases in Xenopus tail regeneration
ツメガエルの尾部再生における H3K27 メチル化因子と脱メチル化因子の異なる役割
○Akane Kawaguchi, Hajime Ogino (n-bio)
- OP02-FT3 (P136)** 10:26-10:29 Gene expression profile of pluripotent stem cells activated for differentiation during regeneration in planarian
○Hayoung Lee¹, Kiyokazu Agata¹, Norito Shibata² (Dept. of Biophysics, Grad. School of Science, Kyoto Univ¹, Regenerative Biology, Grad. School of Science, Kyoto Univ²)

Oral Presentation & Flash Talk 3: Early Embryogenesis 1

June 3 (Wed) 9:00 ~ 10:30 Room C

Chairperson:



Daisuke Kurokawa
(Univ. of Tokyo)

- OP03-1** 09:20-09:35 A novel plasma membrane structure capturing centrosome determines the orientation of cell division in ascidian epidermal cells
ホヤ表皮細胞における中心体に伸長する新奇膜構造の構造と機能の解析
○Takefumi Negishi^{1,4}, Naoyuki Myazaki², Kazuyoshi Murata², Hitoyoshi Yasuo³, Naoto Ueno¹ (NIBB¹, NIPS², LBDV³, JSPS⁴)
- OP03-2** 09:20-09:35 Mechanism that creates the polarity important for mesoderm and endoderm fate separation
中内胚葉運命分離に重要な細胞極性を作り出す機構の解析
○Naohito Takatori, Hidetoshi Saiga (Tokyo Met. Univ.)
- OP03-3** 09:35-09:50 Regulation of undifferentiated state in chicken blastoderms by Jak/Stat signaling
Jak/Stat シグナルによるニワトリ胚盤葉の未分化状態の制御
○Shota Nakanoh, Kiyokazu Agata (Kyoto University, Science)

- OP03-4** 09:50-10:05 Ancestral mesodermal reorganization and the evolution of vertebrate head
祖先的中胚葉の再構築による脊椎動物の頭部の進化
○Takayuki Onai¹, Toshihiro Aramaki², Hidehiko Inomata³, Tamami Hirai¹, Shigeru Kuratani¹ (Evolutionary Morphology Laboratory, RIKEN, Kobe, 650-0047, Japan¹, Pattern Formation Group, Graduate School of Frontier Biosciences, Osaka University, 1-3 Yamadaoka, Suita, Osaka 565-0871, Japan², Laboratory for Axial Pattern Dynamics, RIKEN Center for Developmental Biology, Kobe 650-0047, Japan³)
- OP03-5** 10:05-10:20 Polarization of the mouse node cells by asymmetric distribution of Wnt5a/5b and their inhibitors
ノードの細胞極性は Wnt5a/5b と Wnt のインヒビターの非対称な分布によって決められている
○Katsura Minegishi¹, Masakazu Hashimoto¹, Rieko Ajima², Yasunobu Igarashi³, Kyo-suke Shinohara¹, Hidetaka Shiratori¹, Hiroshi Hamada¹ (Osaka University FBS¹, National Institute of Genetics², OLYMPUS software technology³)
- OP03-FT1 (P015)** 10:20-10:23 Larval fin formation in amphibians is interfered with the GABA signaling
両生類幼生のヒレ構造形成は GABA シグナリングに阻害される
○Yuki Yamasaki¹, Tomoyo Furukawa², Hiroki Kuroda¹ (IAB, Keio Univ¹, Shizuoka Univ²)
- OP03-FT2 (P016)** 10:23-10:26 Phosphatase of regenerating liver-3 is essential for the early development of zebrafish embryos
○Ting-Fang Wang¹, Te-Hsien Liu¹, Yau-Hung Chen², Ming-Der Lin^{1,3} (Dept LS, TCU, Taiwan¹, Dept Chemistry, TKU, Taiwan², Dept MBHG, TCU, Taiwan³)

Oral Presentation & Flash Talk 4 : Morphogenesis 2

June 3 (Wed) 10:45 ~ 12:15 Room A

Chairperson:



Shinji Takada
(NIBB)

- OP04-1** 10:50-11:05 Keep calm and Go with the flow
神経堤細胞は水の如く器に従う
○Sei Kuriyama (Akita University)
- OP04-2** 11:05-11:20 Relative cellular motion in vertebrate somitogenesis
脊椎動物体節形成期における細胞移動
○Koichiro Uriu¹, Bhavna Rajasekaran², Luis Morelli³, Andrew Oates⁴ (Theoretical Biology Laboratory, RIKEN¹, MPI-PKS², FCEyN UBA and IFIBA, CONICET³, MRC-NIMR⁴)
- OP04-3** 11:20-11:35 Segmental border is defined by Ripply2-mediated Tbx6 repression independent of Mesp2
○Wei Zhao^{1,2}, Rieko Ajima^{1,3}, Youichirou Ninomiya¹, Yumiko Saga^{1,2,3} (NIG¹, UTokyo², SOKENDAI³)
- OP04-4** 11:35-11:50 Multiple genome modifications induced by crRNAs, tracrRNA and Cas9 protein in zebrafish
Cas9 タンパク質、tracrRNA および複数の crRNA を用いたゼブラフィッシュにおける多重遺伝子改変
○Kiyohito Taimatsu, Hirohito Kotani, Rie Ohga, Satoshi Ota, Atsuo Kawahara (Labo-

ratory for Developmental Biology, University of Yamanashi)

- OP04-5** 11:50-12:05 Nucleocytoplasmic Shuttling of a GATA Transcription Factor Functions as a Development Timer
○Tetsuya Muramoto^{1,2}, Masahiro Ueda² (Toho University¹, RIKEN QBiC²)
- OP04-FT1 (P041)** 12:05-12:08 O-Fucosyltransferase activity of Pofut1 is essential to control its own protein stability and regulate Notch1 signaling activity during somitogenesis
Pofut1 糖鎖修飾活性は体節形成時の Pofut1 タンパク質の安定化と Notch シグナルの活性化に必要である
○Rieko Ajima, Yumiko Saga (NIG)
- OP04-FT2 (P059)** 12:08-12:11 Insulation of *Lmbr1* expression from *Shh* enhancers in the mouse embryo
Shh 遺伝子の組織特異的エンハンサーから遮蔽された *Lmbr1* の発現
○Takanori Amano, Toshihiko Shiroishi (NIG)
- OP04-FT3 (P042)** 12:11-12:14 Heterochrony in initiation of *Gdf11* expression specifies unique posterior appendage positioning in vertebrates
Gdf11 の発現開始タイミングのヘテロクロニーが脊椎動物の腹鰭・後肢の位置の多様性を生み出す
○Yoshiyuki Matsubara¹, Ayumi Hattori², Yusuke Watanabe², Toshihiko Ogura², Atsushi Kuroiwa¹, Takayuki Suzuki^{1,3} (Div. of Biol. Sci., Grad. Sci. of Sci., Nagoya Univ.¹, IDAC, Tohoku Univ.², JST PRESTO³)

Oral Presentation & Flash Talk 5: Regeneration 2 & Growth 2

June 3 (Wed) 10:45 ~ 12:15 Room B

Chairperson:



Atsushi Kawakami
(Tokyo Tech.)

- OP05-1** 10:50-11:05 Regeneration of functional joint reintegrating the remaining and regenerated tissues in newts and frogs
イモリとカエル四肢における、残存部と再生部の調和による機能的な関節再生の解析
○Rio Tsutsumi¹, Takeshi Inoue¹, Shigehito Yamada^{2,3}, Kiyokazu Agata¹ (Dept. of Biophys., Grad. Sch. of Sci., Kyoto Univ.¹, Human Health Science, Grad. Sch. of Med., Kyoto Univ.², Congenital Anomaly Research Center, Grad. Sch. of Med., Kyoto University³)
- OP05-2** 11:05-11:20 The planarian *Dugesia japonica* acts as a new model animal to understand molecular mechanisms underlying stable body proportioning
○Kazutaka Hosoda¹, Osamu Nishimura², Shigenobu Yazawa¹, Tetsutaro Hayashi³, Kiyokazu Agata¹, Yoshihiko Umesono⁴ (Dept. of Biophys., Kyoto Univ.¹, GCOE, Kyoto Univ.², RIKEN ACCC³, Grad. Sch. of Life Sci., Univ. of Hyogo⁴)
- OP05-3** 11:20-11:35 Acquisition of motility of planarian pluripotent stem cells requires *MTAI* homologs
MTAI 相同遺伝子によるプラナリア全能性幹細胞の移動性の獲得
○Yuki Sato, Kiyokazu Agata, Norito Shibata (KU)
- OP05-4** 11:35-11:50 The potential of the neural stem cells in axolotl spinal cord
○Akira Tazaki, Elly Tanaka (CRTD, TU Dresden)

- OP05-5** 11:50-12:05 A functional expression cloning approach to identify molecules involved in initiating regeneration
発現クローニング法による再生開始に関連する分子の同定
○Takuji Sugiura^{1,2}, Rico Barsacchi², Akira Tazaki^{1,2}, Elly Tanaka^{1,2} (CRTD / TU Dresden¹, MPI-CBG²)
- OP05-FT1 (P047)** 12:05-12:08 Elevated CO₂ promotes satellite stomatal production via DNA replication in *Arabidopsis* cotyledons
高 CO₂ 環境下における気孔発生の空間配置制御機構の解析
○Takumi Higaki, Kae Akita, Seiichiro Hasezawa (GSFS, The Univ. Tokyo)
- OP05-FT2 (P050)** 12:08-12:11 Revealing the function of EPF-peptides
EPF ペプチドの機能解析
○Rene H. Wink¹, Naoyuki Uchida¹, Keiko U. Torii^{1,2} (ITbM Nagoya University¹, HHMI-GBMF²)
- OP05-FT3 (P128)** 12:11-12:14 Gene expression analysis of apical epidermal cap during tail regeneration in xenopus tadpole
アフリカツメガエル幼生尾部再生時に形成される apical epidermal cap における遺伝子発現解析
○Akinori Okumura, Yoshihiko Umesono, Makoto Mochii (Grad Sch of Life Sci, Univ of Hyogo)

Oral Presentation & Flash Talk 6 : Early Embryogenesis 2

June 3 (Wed) 10:45 ~ 12:15 Room C

Chairperson:



Mikiko Tanaka
(Tokyo Tech.)

- OP06-1** 10:50-11:05 Subfunctionalization of two *brachyury* genes in *Xenopus* reveals Brachyury functions in the vertebrate notochord
Xenopus における二つの *brachyury* 遺伝子の機能分化から脊索における Brachyury の役割を解明する
○Yuuri Yasuoka, Ryo Koyanagi, Nori Satoh (OIST)
- OP06-2** 11:05-11:20 Recruitment of Sox9 to the neural border specification program in marsupial cranial neural crest development
有袋類の頭部神経堤発生における Sox9 遺伝子の神経境界形成プログラムへの移行
○Yoshio Wakamatsu¹, Noriko Osumi¹, Kunihiko Suzuki² (Dept. Dev. Neurosci., Tohoku Univ. Grad. Sch. Med.¹, Dept. Biol., Nihon Univ. Sch. Dent. Matsudo²)
- OP06-3** 11:20-11:35 Conserved and novel BMP/Admp circuits control dorsoventral axis in ambulacrarians
Yi-Cheng Chang^{1,2}, Chih-Yu Pai¹, Yi-Chih Chen¹, Hsiu-Chi Ting¹, Pedro Martinez³, Maximilian Telford⁴, Jr-Kai Yu¹, ○Yi-Hsien Su^{1,2} (ICOB, Academia Sinica¹, Department of Bioscience and Biotechnology, NTOU², Department de Gentica, UB³, Department of Genetics, Evolution and Environment, UCL⁴)
- OP06-4** 11:35-11:50 The NFκB transcription factor Rel fine-tunes dorsal-ventral pattern of zebrafish early embryos

NFκB ファミリーの転写因子 Rel は、ゼブラフィッシュ初期胚の背腹軸形成を調節する

Satoshi Anai¹, Satoshi Ota^{1,2}, Shizuka Ishitani¹, [○]Tohru Ishitani¹ (Div. of Cell Reg. Sys., Med. Ins. of Bioreg., Kyushu Univ.¹, Lab. for Dev. Biol., Center for Med. Edu. Sci., Grad. Sch. of Med. Sci., Univ. of Yamanashi²)

- OP06-5** 11:50-12:05 Functional analysis of a Hox gene, *abdominal-A*, using CRISPR/Cas9 system in the cricket *Gryllus bimaculatus*
フタホシコオロギにおける CRISPR/Cas9 システムを用いた Hox 遺伝子 *abdominal-A* の機能解析
[○]Yuji Matsuoka¹, Takahito Watanabe², Chinami Kurita¹, Sayuri Tomonari¹, Sumihare Noji², Taro Mito¹ (Dept. Life Syst., Inst. Tech. Sci., Tokushima Univ.¹, Cent. Collab. Agri. Indust. Commer. Tokushima Univ.²)
- OP06-FT1 (P027)** 12:05-12:08 The deep roots of vertebrate genomic evolution: insights from the embryonic transcriptome and Hox genes of the hagfish
[○]Juan Pascual-Anaya¹, Antonio Perez-Pulido², Fumiaki Sugahara³, Shigeru Kuratani¹ (RIKEN¹, CABD, UPO-CSIC-JA², HCM³)
- OP06-FT2 (P028)** 12:08-12:11 Hox gene cluster structure in *Halocynthia roretzi* genome
マボヤの Hox 遺伝子クラスター
[○]Yuka Sekigami¹, Asao Fujiyama², Nori Satoh³, Hidetoshi Saiga¹ (TMU¹, NIG², OIST³)

Oral Presentation & Flash Talk 7 : Morphogenesis 3

June 3 (Wed) 13:30 ~ 15:00 Room A

Chairperson:



Hidehiko Inomata
(RIKEN CDB)

- OP07-1** 13:35-13:50 Dynein arms assembly and transport in mammal
マウスにおける軸糸ダイニンの組み立てと繊毛への輸送
[○]Yasuko Asai¹, Kyosuke Shinohara¹, Tetsuya Nakamura², Ryo Nabeshima¹, Hiroshi Hamada¹ (FBS, Osaka Univ.¹, University of Chicago²)
- OP07-2** 13:50-14:05 Novel gene Scaffold negatively regulates JNK signaling
[○]Ying Sun, Lei Xue (SKSD, Tongji Univ)
- OP07-3** 14:05-14:20 A genetic screen identifies modifiers of human APP in *Drosophila*
[○]Pu Ren, Lei Xue (SLST, Tongji Univ)
- OP07-4** 14:20-14:35 Quantitative live imaging unravels periodic regulatory mode of cell cycling in embryonic body axis development
定量的ライブイメージングによる体軸発生における細胞周期の周期的調節の解明
[○]Takashi Saitou^{1,2}, Takeshi Imamura^{1,2,3}, Tadahiro Iimura³ (Graduate School of Medicine, Ehime Univ.¹, TRC, Ehime Univ.², PROS, Ehime Univ.³)
- OP07-FT1 (P048)** 14:35-14:38 Impaired Hippo signaling promotes Rho1-JNK-dependent growth
[○]Yujun Chen, Xianjue Ma, Wenyan Xu, Nana Wu, Lei Xue (SLST, Tongji Univ.)
- OP07-FT2 (P068)** 14:38-14:41 Regulation of asymmetric cell division by three distinct Wnt pathways in *C. elegans*

C. elegans における 3 つの異なる Wnt シグナル伝達経路による非対称性細胞分裂の調節

○Yinhua Jin, Masako Yokoo, Hitoshi Sawa (NIG)

- OP07-FT3 (P056)** 14:41-14:43 Dlx5-overexpression mice show a homeotic transformation in the upper jaw into lower jaw-like structures
Dlx5 過剰発現マウスにおける上顎の下顎構造へのトランスフォーメーション
○Miki Shimizu¹, Taro Kitazawa¹, Yumiko Kawamura¹, Nicolas Narboux-Nme², Giovanni Levi², Yasunobu Uchijima¹, Yukiko Kurihara¹, Hiroki Kurihara¹ (Dept. Physiol. Chem. & Metab., Grad. Sc. of Med., Univ. of Tokyo¹, UMR7221 CNRS-MNHN²)
- OP07-FT4 (P069)** 14:43-14:46 ChIP-Atlas: Comprehensive database for visualizing all published ChIP-seq data
ChIP-Atlas: 既報の ChIP-seq 実験を全て可視化するためのデータベース
○Shinya Oki¹, Tazro Ohta², Go Shioi³, Chikara Meno¹ (Grad. Sch Med. Sci., Kyushu Univ.¹, DBCLS, ROIS², RIKEN CLST³)
- OP07-FT5 (P043)** 14:46-14:49 Anisotropic cell growth causes looping of the developing heart
心臓ループの形成は細胞の異方的増殖による
○Hisao Honda^{1,2} (Kobe Univ. Medicine¹, RIKEN CDB²)
- OP07-FT6 (P031)** 14:49-14:52 Blood flow and vascular remodeling: *in vivo* live-imaging analyses of individual endothelial cells
生体内血管リモデリング: ライブイメージング解析による血管内皮細胞の挙動と血流との関係
○Yuta Takase, Yoshiko Takahashi (Dept. of Zoology, Grad. Sch. of Sci. Kyoto Univ.)

Oral Presentation & Flash Talk 8: Organogenesis 1

June 3 (Wed) 13:30 ~ 15:00 Room B

Chairperson:



Jun Takeuchi
(Univ. of Tokyo)

- OP08-1** 13:35-13:50 The expression and function of Sox2 and CdxA in the pre-boundary region between the stomach and intestine
胃、小腸の予定境界領域における Sox2 と CdxA の発現と機能
Daizo Kurishita, ○Kimiko Fukuda (Dept. Biol., Tokyo Metropol. Univ.)
- OP08-2** 13:50-14:05 Spontaneous dorsal-ventral polarity formation in mouse ESC-derived retina
マウス ES 細胞由来網膜における自発的な背腹軸の形成
○Yuiko Hasegawa, Mototsugu Eiraku (In Vitro Histogenesis, CDB, RIKEN)
- OP08-3** 14:05-14:20 GFP-tagged glomerular podocytes generated from human iPS cells possess slit diaphragms and resemble the transcriptional state of podocytes *in vivo*
○Sazia Sharmin¹, Atsuhiko Taguchi¹, Yasuhiro Yoshimura^{1,2}, Tomoko Ohmori¹, Yusuke Kaku¹, Tetsushi Sakuma³, Masashi Mukoyama², Takashi Yamamoto³, Hidetake Kurihara⁴, Ryuichi Nishinakamura^{1,5} (Kidney Dev., Kumamoto Univ.¹, Nephrology Lab., Kumamoto Univ.², Hiroshima Univ.³, Juntendo Univ.⁴, CREST, Kumamoto⁵)

- OP08-4** 14:20-14:35 Initiation of chicken gonadogenesis is orchestrated by Hedgehog-BMP signaling in lateral plate mesodermal cells
生殖巣の形成開始を担う多様な細胞の振る舞いを引き起こす Hedgehog-BMP シグナル
○Takashi Yoshino¹, Daisuke Saito², Katsuhiko Hayashi¹, Yoshiko Takahashi³ (Stem Cell Biol., Grad. Sch. of Med., Kyushu Univ.¹, FRIS, Tohoku Univ.², Grad. Sch. of Sci., Kyoto Univ.³)
- OP08-5** 14:35-14:50 Heartbeat regulates cardiac gene expression via nuclear shuttling of MKL2
○Atsushi Kubo, Takahiro Niida, Masato Kimura, Kota Miyasaka, Yusuke Watanabe, Toshihiko Ogura (Institute of Development, Aging and Cancer, Tohoku University (IDAC))
- OP08-FT1 (P072)** 14:50-14:53 Roles of sox10 and its possible interaction with sox5 in pigment cell development of medaka
メダカの色素細胞発生において sox10 とその sox5 との相互作用が担う役割
Yusuke Nagao¹, Hiroyuki Takada^{1,2}, Ryoko Seki¹, Yasuhiro Kamei³, Ikuyo Hara⁴, Yoshihito Taniguchi⁵, Kiyoshi Naruse⁴, Robert Kelsh⁶, Masahiko Hibi^{1,2}, ○Hisashi Hashimoto^{1,2} (Biosci. & Biotechnol. Ctr., Nagoya Univ.¹, Grad. Sch. of Sci., Nagoya Univ.², Spectrography Bioimaging Facility, NIBB³, Lab. of Biores., NIBB⁴, Dept. of Preventive Medicine Public Health, Sch. of Med., Keio Univ.⁵, Dept. of Biol. Biochem., Univ. of Bath⁶)
- OP08-FT2 (P073)** 14:53-14:56 Four-dimensional imaging of lung epithelial stem cell in mouse development
発生過程におけるマウス肺幹細胞の4次元イメージング
○Masafumi Noguchi, Mitsuru Morimoto (RIKEN CDB)
- OP08-FT3 (P074)** 14:56-14:59 A non-proliferating tissue enlargement controlling the trachea tubulogenesis
細胞増殖に依存しないマウス気管発生
○Keishi Kishimoto, Mitsuru Morimoto (RIKEN CDB)

Oral Presentation & Flash Talk 9: Neural Development 1 & Behavior

June 3 (Wed) 13:30 ~ 15:00 Room C

Chairperson:



Akinao Nose
(Univ. of Tokyo)

- OP09-1** 13:35-13:50 An L-type lectin VIPL is necessary for the activation of the hindbrain reticulospinal neuron in zebrafish
L型レクチン VIPL は、後脳網様体脊髄路ニューロンの活動に必要である
○Kazuhide Asakawa¹, Koichi Kawakami¹ (NIG¹, SOKENDAI²)
- OP09-2** 13:50-14:05 Anterior-posterior alignment of Rohon-Beard neurons convey spatial information to hindbrain for eliciting coordinated escape behavior
ゼブラフィッシュ Rohon-Beard ニューロンが認識した前後軸方向の空間情報は後脳に伝達されることによって適正な逃避行動を実現する
○Keiko Umeda, Wataru Shoji (FRIS, Tohoku Univ.)

- OP09-3** 14:05-14:20 Establishment of a novel *Drosophila* AD model
○Xingjun Wang, Yu Zhao, Yujia Hu, Lei Xue (SKLSDR)
- OP09-4** 14:20-14:35 Mechanisms on modulation of *Drosophila* courtship choice
○Yujia Hu, Yi Han, Lei Xue (SLST, Tongji Univ.)
- OP09-5** 14:35-14:50 Molecular remodeling of the presynaptic active zone of *Drosophila* photoreceptors via activity-dependent WNT signaling
神経活性依存的な WNT シグナルによるショウジョウバエ視神経の前シナプス活性部位の分子的リモデリング
○Takashi Suzuki¹, Atsushi Sugie², Satoko Hakeda^{1,4}, Emiko Suzuki³, Mai Shimozono¹, Gaia Tavosanis² (Dept. Biosci. & Biotech., Titech¹, DZNE, Bonn, Germany², NIG, Mishima, Japan³, JSPS Fellow⁴)
- OP09-FT1 (P103)** 14:50-14:53 Investigating mechanisms underlying lens differentiation from embryonic neural retina
ニワトリ胚神経性網膜から水晶体への分化遷移の機構
○Hideaki Iida¹, Yasuo Ishii², Hisato Kondoh² (DBGSE, Kyoto Sangyo Univ.¹, DMB-FLS, Kyoto Sangyo Univ.²)
- OP09-FT2 (P110)** 14:53-14:56 *Mab21l2* is required for development of the preBötC neurons involved in respiratory rhythmogenesis
○Chung Man Chan, King Lau Chow (LIFS, HKUST)

Oral Presentation & Flash Talk 10: Morphogenesis 4

June 3 (Wed) 15:15 ~ 16:45 Room A

Chairperson:



Atsushi Kuroiwa
(Nagoya Univ.)

- OP10-1** 15:20-15:35 On a Mechanism of Adaptive Cellular Behavior Achieving Stable Radial Size of a Developing Epithelial Tubule
成長する上皮管の径サイズを維持する適応的な細胞挙動の機構について
○Tsuyoshi Hirashima, Taiji Adachi (Dept Biomechanics, Inst Front Med Sci, Kyoto Univ)
- OP10-2** 15:35-15:50 The role of FGF signaling in tracheal branch fusion in *Drosophila*
○Guangxia Miao^{1,2}, Shigeo Hayashi^{1,2} (RIKEN CDB¹, Kobe University²)
- OP10-3** 15:50-16:05 Pontin negatively regulates Egr-JNK induced cell death
○Xirui Huang, Lei Xue (SLST, Tongji Univ)
- OP10-4** 16:05-16:20 Theoretical analysis of asymmetric branched structures in dissected leaves
分裂葉で見られる非対称な枝分かれ構造の理論的研究
○Akiko Nakamasu^{1,2,4}, Nobuhiko Suematsu^{2,3}, Seisuke Kimura⁴ (Kyushu Univ.¹, MIMS², Meiji Univ.³, Kyo-San Univ.⁴)
- OP10-5** 16:20-16:35 Using *Juncus* (Juncaceae) as a Model System to Study the Development of Unifacial Leaf
○Xiaofeng Yin¹, Takahiro Yamaguchi², Hirokazu Tsukaya¹ (Dept. Biol. Sci., Grad. Sch. Sci., Univ. Tokyo¹, ACEL²)

- OP10-FT1 (P032)** 16:35-16:38 Wnt signal regulates morphological change of cells in the mouse spinal cord
 ◦Takuma Shinozuka^{1,2}, Ritsuko Takada², Shinji Takada^{1,2} (Dept. Basic Biology, SOKENDAI¹, NIBB²)
- OP10-FT2 (P064)** 16:38-16:41 Infrared laser-evoked gene operator (IR-LEGO) method is applicable to study organ morphogenesis in developing and regenerating amphibian
 IR-LEGO (赤外線による局所遺伝子発現法) の両生類における発生・再生研究への応用
 ◦Aiko Kawasumi^{1,2}, Toshinori Hayashi³, Sinichi Hayashi^{2,4}, Yasuhiro Kamei^{5,6}, Yoshihiro Morishita¹, Koji Tamura², Hitoshi Yokoyama^{2,7} (RIKEN QBiC¹, Tohoku University², Tottori University³, University of Minnesota⁴, NIBB⁵, SOKENDAI⁶, Hirosaki University⁷)
- OP10-FT3 (P057)** 16:41-16:44 Switchback of the spicule transport during local retraction of basal epithelium in BIO-treated sponges
 阻害剤 BIO 存在下の培養で生じるカワカイメン個体の部分的な退縮において骨片はスイッチバック後に立てられる
 ◦Kouji Kishimoto, Kiyokazu Agata, Noriko Funayama (Grad. School of Sci. Kyoto University)

Oral Presentation & Flash Talk 11: Organogenesis 2

June 3 (Wed) 15:15 ~ 16:45 Room B

Chairperson:



Kimiko Fukuda
(Tokyo Metropolitan Univ.)

- OP11-1** 15:20-15:35 Molecular mechanisms to convert segmental clock into somite structure in zebrafish
 ゼブラフィッシュ体節形成において分節時計によって作られる時間情報は ripply によって空間パターンへと変換される
 ◦Taijiro Yabe¹, Chimwar Wanglar¹, Kazuyuki Hoshijima², Takashi Yamamoto³, Shinji Takada¹ (NIBB¹, Univ. of Utah², Hiroshima Univ.³)
- OP11-2** 15:35-15:50 Multiple developmental timers coordinate vertebrate organ morphogenesis
 脊椎動物の器官形成におけるタイミング制御
 Hikeaki Iida, Tiantian Yang, Sadao Yasugi, ◦Yasuo Ishii (Fac. Life Sci., Kyoto Sangyo Univ.)
- OP11-3** 15:50-16:05 A feedback loop involving Wnt/ β -catenin, FGF/ERK and SOSTDC1 modulates the self-patterning of bioengineered feather buds in a developmental timing-dependent manner
 Wnt/ β -catenin、FGF/ERK、SOSTDC1 フィードバックループは発生時期依存的に再生羽毛原基の自律的なパターン形成を調節する
 ◦Kentarō Ishida, Toshiyuki Mitsui (Dept. of Phys. & Math., Coll. of Sci. & Eng., Aoyama Gakuin Univ.)
- OP11-4** 16:05-16:20 Reverse genetics in *Xenopus tropicalis* as a model for understanding human genetic diseases involved in eye and brain formation
Xenopus tropicalis に於ける逆遺伝学：眼や脳の形成不全を起こすヒト遺伝疾患の解明の為にモデル生物を目指して
 ◦Takuya Nakayama, Robert Grainger (Dept Bio, UVA, USA)

- OP11-5** 16:20-16:35 DMRT1 is required for Müllerian duct development in the chicken embryo
 ◦Craig Smith¹, Katie Ayers², Andrew Cutting², Kelly Roeszler², Andrew Sinclair²
 (Department of Anatomy and Development Biology, Monash University, Melbourne, Victoria, Australia¹, Murdoch Childrens Research Institute (MCRI), Melbourne, Victoria, Australia²)
- OP11-FT1 (P075)** 16:35-16:38 Neofunctionalization of *elastin* gene demarcates teleost heart outflow tract by regulating cell fate determination via YAP
elastin 遺伝子の重複と新規機能獲得による心臓の進化
 ◦Yuuta Moriyama¹, Kazuko Koshiba-Takeuchi¹ (IMCB, Univ. of Tokyo¹, IMCB, Univ. of Tokyo²)
- OP11-FT2 (P083)** 16:38-16:41 Histone demethylase LSD1 is required for normal development of endodermal organs in zebrafish
 ◦Christina-Sylvia Andrea, Yuji Fuse, Makoto Kobayashi (Fac. Med., Univ. Tsukuba)
- OP11-FT3 (P082)** 16:41-16:44 Foxp4 is critical for acinar cell development in mouse pancreas
 ◦Chi Kin Chung¹, Wing Yip Tam¹, Wang Chi Lau¹, Chiu Yi Leung¹, Kin Ming Kwan^{1,2,3}
 (SLS, CUHK¹, RGC-AoE COBF, CUHK², PSKLA (CUHK)³)

Oral Presentation & Flash Talk 12: Neural Development 2

June 3 (Wed) 15:15 ~ 16:45 Room C

Chairperson:



Masahiko Hibi
(Nagoya Univ.)

- OP12-1** 15:20-15:35 Human cell reprogramming by defined factors isolated from lactic acid bacteria
 乳酸菌由来精製分子を用いたヒト細胞の初期化
 ◦Naofumi Ito, Kunimasa Ohta (Kumamoto University, Dev. Neurobiol.)
- OP12-2** 15:35-15:50 ENTERIC NEURAL CELLS FROM HIRSCHSPRUNG DISEASE PATIENTS FORM GANGLIA AUTOLOGOUSLY IN ANEURONAL COLON MUSCLE TISSUE
 ◦Donald Newgreen¹, Benjamin Rollo², Dongcheng Zhang³, Lincon Stamp⁴, Mark Denham⁵, John Hutson⁶ (MCRI¹, MCRI², MCRI³, Department of Anatomy and Neuroscience, University of Melbourne, Parkville, Australia⁴, DRITM⁵, Department of Paediatrics, University of Melbourne, Parkville, Australia⁶)
- OP12-3** 15:50-16:05 Hedgehog and PTCHD genes couple reactivation of neural progenitors to the nutritional state in *C. elegans*
C. elegans においてヘッジホッグと PTCHD 遺伝子は神経前駆細胞の栄養状態に応答した活性化を制御する
 ◦Masamitsu Fukuyama, Masahiko Kume, Kenji Kontani, Toshiaki Katada (Dept. of Physiological Chem, Grad. Sch. of Pharmaceutical Sci., Univ. of Tokyo)
- OP12-4** 16:05-16:20 Deep-tissue super-resolution imaging using an optimized clearing agent, SeeDB2
 改良型透明化試薬 SeeDB2 を用いた深部超解像イメージング
 Meng-Tsen Ke¹, Shuhei Yoshida¹, Rie Takayama², Tomoya Kitajima¹, Makoto Sato^{2,3},
 ◦Takeshi Imai^{1,4} (RIKEN CDB¹, Grad Sch of Medical Sciences, Kanazawa Univ², CREST, JST³, PRESTO, JST⁴)

- OP12-5** 16:20-16:35 Development of patterned activity in the motor circuits of *Drosophila* embryos
 ショウジョウバエ胚の神経回路における協調的活動の発達の研究
 ○Tappei Kawasaki¹, Sawako Niki¹, Yuki Itakura¹, Akinao Nose^{1,2} (Dept of Complexity Sci and Eng, Grad Sch of Frontier Sci, Univ of Tokyo, Chiba, Japan¹, Dept of Complexity Sci and Eng, Grad Sch of Frontier Sci, Univ of Tokyo²)
- OP12-FT1 (P123)** 16:35-16:38 Synaptic specificity and loci determination in the *Drosophila* photoreceptor
 ショウジョウバエの視神経を用いた中枢神経シナプスの分布・可塑性制御機構の解析
 ○Fumio Takahashi¹, Atsushi Sugie², Satoko Hakeda-Suzuki¹, Takashi Suzuki¹ (TITech¹, DZNE, Bonn, Germany²)
- OP12-FT2 (P121)** 16:38-16:41 Species-specific repertoires of promoter-associated non-coding RNAs may contribute to the diversification of gene expression profile
 長鎖ノンコーディング RNA を介した遺伝子発現制御の生物種間多様性
 ○Masahiro Uesaka^{1,2,3}, Kinichi Nakashima², Kiyokazu Agata¹, Takuya Imamura² (Grad. Sch. of Sci., Kyoto Univ.¹, Grad. Sch. of Med. Sci., Kyushu Univ.², Grad. Sch. of Sci., Univ. of Tokyo³)

Oral Presentation & Flash Talk 13: Morphogenesis 5

June 3 (Wed) 18:45 ~ 20:15 Room A

Chairperson:



Hiroki Oda
(JT BRH)

- OP13-1** 18:50-19:05 Identification of genetic modifiers that interact with *pecanex*, encoding a component of Notch signaling in *Drosophila*
 Notch シグナル伝達系構成因子、Pecanex と遺伝的に相互作用する調節遺伝子の網羅的探索
 ○Tomoko Yamakawa, Shiori Kubo, Kenji Matsuno (Dept. of Biol. Sci., Grad. School of Sci., Osaka Univ.)
- OP13-2** 19:05-19:20 Spatial regulation of Wnt proteins and convergent extension movements during *Xenopus* early embryogenesis
 アフリカツメガエル初期発生における Wnt 蛋白質の空間的制御と収斂伸張運動
 ○Yusuke Mii^{1,2}, Shinji Takada^{1,2} (NIBB¹, OIIB²)
- OP13-3** 19:20-19:35 dFoxO promotes Wingless signaling in *Drosophila*
 ○Shiping Zhang, Xiaowei Guo, Yujun Chen, Changyan Chen, Yang Yang, Wenzhe Li, Lei Xue (SKSD, Tongji Univ.)
- OP13-4** 19:35-19:50 Protein Kinase A Coordinates Dorsoventral Polarity Signals Driving Inner Ear Regional Patterning
 ○Sho Ohta¹, Gary Scoenwolf² (Univ. Utah SOM¹, Univ. Utah SOM²)
- OP13-5** 19:50-20:05 Relative coordinate representation of tissue deformation dynamics and its application
 組織変形動態の相対座標表現とその応用 (ニワトリ四肢発生を例に)

○Yoshihiro Morishita (RIKEN QBiC)

- OP13-FT1 (P035)** 20:05-20:08 *Six4* and *Six5* are required for ventral body wall closure and morphogenesis of the primary body wall
転写制御因子 *Six4/Six5* は腹壁閉鎖と一次腹壁の形態形成に必須である
○Masanori Takahashi, Kiyoshi Kawakami (Div. of Biol. Cent. for Mol. Med. Jichi Med. Univ.)
- OP13-FT2 (P060)** 20:08-20:11 Observation of FGF response in lung epithelium and modeling for branching morphogenesis
マウス肺の分岐構造を形成する FGF 応答の観察とモデル化
○Hisako Imamura-Takigawa, Takashi Miura (Dept. Anat. Cell Biol., Grad. Sch. Med., Kyushu Univ.)
- OP13-FT3 (P061)** 20:11-20:14 Establishment of spicule mechanical wobbling system in *E. fluviatilis*
カワカイメンにおける骨片を機械的に揺らす実験系の構築
○Sota Takagi, Kotoe Kawai, Kiyokazu Agata, Noriko Funayama (Dep. Biophysics, Grad. School of Science, Kyoto Univ.)

Oral Presentation & Flash Talk 14: Organogenesis 3

June 3 (Wed) 18:45 ~ 20:15 Room B

Chairperson:



Mitsuru Morimoto
(RIKEN CDB)

- OP14-1** 18:50-19:05 How sponges adjust their skeleton construction to their plastic and indeterminate growth
可変的で持続的なカイメンの成長に合わせた骨格形成を可能にする仕組み
○Noriko Funayama, Chihiro Inui, Kouji Kishimoto, Kiyokazu Agata (Dept. of Biophys., Graduate School of Science, Kyoto Univ.)
- OP14-2** 19:05-19:20 Different regulation of limb development by p63 transcript variants
p63 transcript variants による四肢発生の多様な制御機構
○Manabu Kawata¹, Yuki Taniguchi¹, Daisuke Mori², Fumiko Yano², Keita Okada¹, Yoshifumi Mori¹, Chang Song Ho¹, Kazuhito Soma¹, Yuma Makii¹, Fengjun Xuan¹, Sakae Tanaka¹, Taku Saito^{1,2} (Dept. of Orthop. Surg., Grad. Sch. of Med., Univ. of Tokyo¹, Dept. of Bone & Cart. Reg. Med., Univ. of Tokyo²)
- OP14-3** 19:20-19:35 Tissue-specific roles of FGF signaling in external genitalia development
外生殖器形成における組織特異的な FGF シグナルの役割
○Masayo Harada¹, Akiko Omori², Keiichi Akita¹, Gen Yamada² (TMDU¹, WMU²)
- OP14-4** 19:35-19:50 Mib1 controls cell migration via negative regulation of Ctnnd1 activity
○Takamasa Mizoguchi¹, Shoko Ikeda¹, Saori Watanabe¹, Sasa Yang¹, Kazuya Hirose², Motoyuki Itoh¹ (Grad. Sch. of Pharm. Sci., Chiba Univ.¹, Div. of Bio. Sci., Grad. Sch. of Sci., Nagoya Univ.²)
- OP14-5** 19:50-20:05 Control of Wnt5b Secretion by Wntless modulates Chondrogenic Cell Proliferation through fine-tuning fgf3 Expression during Jaw Cartilage Development

Bo-Tsung Wu^{1,2}, Shih-Hsien Wen^{1,2}, Sheng-Ping L. Hwang³, Chang-Jen Huang^{1,2},
○Yung-Shu Kuan^{1,2,4} (IBS, Nat'l Taiwan Univ., Taiwan¹, IBC, Academia Sinica, Tai-
wan², ICOB, Academia Sinica, Taiwan³, GSB, Nat'l Taiwan Univ., Taiwan⁴)

- OP14-FT1 (P076)** 20:05-20:08 *cis*-regulatory elements and *trans*-acting factors regulating *Fgf10* expression in the presumptive limb field
予定肢芽領域における *Fgf10* 発現を制御する *cis* 制御エレメントと *trans* 因子
○Yo-ichi Yamamoto-Shiraishi, Ami Uemura, Yu-hei Kohara, Taishi Ueta, Atsushi Kuroiwa (Div. of Biol. Sci., Grad. Sch. of Sci., Nagoya Univ.)
- OP14-FT2 (P077)** 20:08-20:11 A novel concept of organogenesis: an essential role of platelets in lung development
血小板と肺発生の関連から提唱される器官形成の新しいメカニズム
○Nagaharu Tsukiji¹, Osamu Inoue², Shogo Tamura¹, Toshiaki Shirai¹, Tomoyuki Sasaki¹, Kaneo Satoh¹, Katsue Suzuki-Inoue¹, Yukio Ozaki¹ (Department of Clinical and Laboratory Medicine, Faculty of Medicine, University of Yamanashi¹, Infection Control Office, University Of Yamanashi Hospital, Faculty of Medicine, University of Yamanashi²)
- OP14-FT3 (P084)** 20:11-20:14 Real time imaging of Neuregulin 1 ectodomain-shedding in the developing zebrafish embryos
ゼブラフィッシュ胚における増殖因子 Neuregulin 1 の切断の可視化
○Aosa Kamezaki^{1,2}, Fuminori Sato¹, Kazuhiro Aoki³, Koichi Kawakami⁴, Shigetomo Fukuhara⁵, Naoki Mochizuki⁵, Atsuko Sehara-Fujisawa¹ (Department of Growth Regulation, IFMS, Kyoto university¹, Graduate School of Biostudies, Kyoto University², Laboratory of Bioimaging and Cell Signaling, Graduate School of Biostudies, Kyoto University³, Division of Molecular and Developmental Biology, NIG⁴, Department of Cell Biology, NCVC⁵)

Oral Presentation & Flash Talk 15 : Reproduction & Gametogenes

June 3 (Wed) 18:45 ~ 20:15 Room C

Chairperson:



Satoru Kobayashi
(Univ. of Tsukuba)

- OP15-1** 18:50-19:05 Dosage of FGF5 in a subset lymphatic endothelial cells controls mouse spermatogenic stem cell pool size
精子幹細胞のプールサイズはリンパ内皮細胞の一部で発現する FGF5 により調節されている
○Yu Kitadate, Ayumi Maruyama, Shosei Yoshida (NIBB)
- OP15-2** 19:05-19:20 Neuroendocrine control of mating-induced germline stem cell proliferation in female *Drosophila melanogaster*
キイロショウジョウバエにおける交尾によって誘導されるメス生殖幹細胞増殖の神経内分泌制御
○Tomotsune Ameku¹, Ryusuke Niwa^{1,2} (Grad. Sch. of Life and Environ. Sci., Univ. of Tsukuba¹, PRESTO, JST, Japan²)
- OP15-3** 19:20-19:35 Analysis of oocyte-specific enhancer in *Xenopus* linker histone *B4*
ツメガエルリンカーヒストン B4 遺伝子の卵母細胞特異的発現にか

かわるエンハンサーの解析

Takumi Kondo, Mitsugu Maeno (Gra. Sch. Sci. Tech., Niigata Univ.)

- OP15-4** 19:35-19:50 Six1 and Six4 homeodomain proteins regulate mouse primordial germ cell formation
転写因子 Six1/Six4 は、マウス始原生殖細胞の形成を制御する
Satomi Tanaka¹, Yasuka Yamauchi¹, Yuka Fujimoto¹, Kiyoshi Kawakami², Ryuichi Nishinakamura¹ (IMEG, Kumamoto Univ.¹, CMM, Jichi Medical Univ.²)
- OP15-FT1 (P090)** 19:50-19:53 Screening and treatment of asthenozoospermia caused by a *GALNTL5* gene mutation
ヒト *GALNTL5* 遺伝子変異を原因とする精子無力症患者の同定と治療
Nobuyoshi Takasaki¹, Jun Hagiuda^{1,2}, Hiromichi Ishikawa², Hisashi Narimatsu¹ (GTRC, AIST¹, Ichikawa General Hosp. Tokyo Dent. Colle.²)
- OP15-FT2 (P091)** 19:53-19:56 Identification, localization, and functional analysis of CABS1 protein in porcine testis
Hossam H. Shawki^{1,2}, Akihiro Kawashima¹, Takumi Kigoshi¹, Satoru Takahashi², Naomichi Okamura¹ (Laboratory of Reproductive Biochemistry, Graduate School of Comprehensive Human Sciences, University of Tsukuba¹, Department of Anatomy and Embryology, Faculty of Medicine, University of Tsukuba²)
- OP15-FT3 (P092)** 19:56-19:59 Structural plasticity of the mature egg-coating envelope accompanied by the extrinsic control of fertilization success in *Xenopus laevis*
ダイカルシンと gp41 の相互作用を基盤とする受精率制御に伴う卵保護膜構造変化
Naofumi Miwa, Mayu Hanaue, Ken Takamatsu (Toho Univ., Dept. Physiol.)
- OP15-FT4 (P093)** 19:59-20:02 Gain of function mutations in two paralogous Androgen receptor (AR) genes of teleosts : Implications for evolution of AR gene function
Yukiko Ogino¹, Shigehiro Kuraku², Hiroshi Ishibashi³, Hitoshi Miyakawa¹, Shinichi Miyagawa¹, Gen Yamada⁴, Michael E. Baker⁵, Taisen Iguchi¹ (Div. Molecular Environmental Endocrinology, NIBB, Okazaki Institute for Integrative Bioscience, SOKENDAI¹, Phyloinformatics Unit, RIKEN CLST², Faculty of Agriculture, Ehime Univ.³, Dept. Developmental Genetics, Wakayama Medical Univ.⁴, Division of Nephrology-Hypertension, Univ. of California, San Diego⁵)
- OP15-FT5 (P097)** 20:02-20:05 Functional analyses of Nanos3 in mouse spermatogenesis
精子形成過程における Nanos3 の機能解析
Takayuki Sakurai^{1,2}, Yumiko Saga^{1,2,3} (NIG¹, Department of Genetics, SOKENDAI², Department of Biological Sciences, Graduate School of Science, University of Tokyo³)
- OP15-FT6 (P098)** 20:05-20:08 Biogenesis of Drosophila stress granules and its interaction with P-bodies in female germline
Chia-Ying Liu¹, Szu-Jing Huang², Ming-Der Lin^{1,2} (Dept MBHG, Tzu Chi Univ. Taiwan¹, Dept LS, Tzu Chi Univ. Taiwan²)
- OP15-FT7 (P099)** 20:08-20:11 The oogenesis and transcriptome analysis of *Forcipomyia taiwana* (Diptera: Ceratopogonidae)
Szu-Chieh Wang¹, Anna Shiny Radhakrishnan^{1,2}, Hsien-Min Lee³, Cheng-Nan Wu⁴, Chuen-Fu Lin⁵, Ming-Der Lin¹ (Dept MBHG, TCU, Taiwan¹, Dept GE, SRM, India², IBT, CTUST, Taiwan³, Dept MLSB, CTUST, Taiwan⁴, Dept VM, NCU, Taiwan⁵)

Oral Presentation & Flash Talk 16: Early Embryogenesis 3

June 4 (Thu) 13:30 ~ 15:00 Room A

Chairperson:



Toru Ishitani
(Kyushu Univ.)

- OP16-1** 13:35-13:50 Indispensable roles of *Lrrc15* for proper tissue morphogenesis during mouse development
○Ahmed Abo-Ahmed¹, Dong-Soo Lee², Masatake Osawa³ (Graduate School of Med., Gifu Univ., Japan¹, Graduate School of Med., Gifu Univ., Japan², Graduate School of Med., Gifu Univ., Japan³)
- OP16-2** 13:50-14:05 Roles of glypicans and NDST1 in the formation of two distinct types of heparan sulfate nanostructures involved in extracellular distributions of Wnt and sFRP
Wnt と sFRP の細胞外分布に関わる 2 つの異なるヘパラン硫酸ナノ構造の形成におけるグリピカンと NDST1 の役割
○Takayoshi Yamamoto¹, Yusuke Mii², Shinji Takada², Masanori Taira¹ (Lab. of Mol. Biol., Dept. of Biol. Scis., Grad. Sch. of Sci., Univ. of Tokyo¹, Div. of Mol. Dev. Biol., NIBB²)
- OP16-3** 14:05-14:20 Analysis of the role of *Tsukushi* during chick somitogenesis
○Uzzal Acharjee^{1,2}, Ryu Gejima¹, Athary Felemban¹, M. Ashrafuzzaman Riyadh¹, Yoshiko Takahashi³, Hideaki Tanaka¹, Kunimasa Ohta¹ (Kumamoto Univ.¹, Kumamoto Univ.², Kyoto Univ.³)
- OP16-4** 14:20-14:35 Gene activation-associated long noncoding RNAs function in mouse preimplantation development
長鎖ノンコーディング RNA によるマウス胚性遺伝子活性化メカニズム
○Nobuhiko Hamazaki^{1,2}, Masahiro Uesaka^{1,2,3}, Kinichi Nakashima², Kiyokazu Agata¹, Takuya Imamura² (Grad. Sci., Univ. of Kyoto¹, Grad. Med., Univ. of Kyushu², Grad. Sci., Univ. of Tokyo³)
- OP16-5** 14:35-14:50 Quantitative reconstruction of three types of stripe-forming processes that occur in a dynamic epithelium of the spider embryo
クモ胚の動的上皮で起こる 3 つのストライプ形成過程の定量的再構成
Natsuki Hemmi^{1,2}, Yasuko Akiyama-Oda¹, Hiroki Oda^{1,2} (JT BRH¹, Osaka Univ.²)
- OP16-FT1 (P020)** 14:50-14:53 A disintegrin and metalloprotease 12 (ADAM12) involves to the body growth at juvenile stage in zebrafish
膜型メタロプロテアーゼ ADAM12 は稚魚期のゼブラフィッシュの発育に参与する
○Yudai Tokumasu¹, Atsuo Iida¹, Zi Wang¹, Atsuko Sehara-Fujisawa¹ (Ins. for Front. Med. Sci., Kyoto Univ.¹, Atsuo Iida², Zi Wang³, Atsuko Sehara-Fujisawa⁴)
- OP16-FT2 (P012)** 14:53-14:56 The Nodal signaling pathway controls left-right asymmetric development in amphioxus
Vladimir Soukup², Luok Wen Yong¹, Tsai-Ming Lu¹, Song-Wei Huang¹, Zbynek Kozmik², Jr-Kai Yu^{1,3} (ICOB, AS¹, IMG, ASCR², IONTU³)

Oral Presentation & Flash Talk 17: Growth 3

June 4 (Thu) 13:30 ~ 15:00 Room B

Chairperson:



Masayuki Miura
(Univ. of Tokyo)

- OP17-1** 13:35-13:50 Biological timer in fat body determines pupation timing in *Drosophila melanogaster*
キイロショウジョウバエの蛹化タイミングを決定する生物タイマーは脂肪体に存在する
○Haruka Nishida¹, Abdel-Rahman Sultan¹, Kazutaka Akagi¹, Moustafa Sarhan¹, Takumi Nakayama¹, Azusa Koie¹, Hitoshi Ueda^{1,2} (Grad. Sch. of Natl. Sci. Tech., Okayama Univ.¹, Dept. Biol., Faculty of Sci., Okayama Univ.²)
- OP17-2** 13:50-14:05 Nutrient-sensitive hormone CCHamide-2 controls growth through insulin/IGF production in the brain of *Drosophila melanogaster*
ショウジョウバエの新規栄養応答性ホルモン CCHa2 による insulin/IGF を介した成長制御
○Hiroko Sano¹, Akira Nakamura², Michael Texada³, James Truman³, Hiroshi Ishimoto⁴, Azusa Kamikouchi^{4,5}, Naoki Tani², Yutaka Nibu⁶, Kazuhiko Kume⁷, Takanori Ida⁸, Masayasu Kojima¹ (Inst. of Life Science, Kurume Univ.¹, Inst. of Molecular Embryology and Genetics, Kumamoto Univ.², Janelia Research Campus, HHMI³, Graduate School of Science, Nagoya Univ.⁴, PRESTO⁵, Weil Medical College of Cornell Univ.⁶, Graduate School of Pharmaceutical Sciences, Nagoya City Univ.⁷, Frontier Science Research Center, Miyazaki Univ.⁸)
- OP17-3** 14:05-14:20 Ensuring developmental robustness by “cell-turnover” in *Drosophila epithelium*
発生ロバストネスを制御する「細胞ターンオーバー」の遺伝学的解析
○Shizue Ohsawa¹, Nanami Akai¹, Tatsushi Igaki^{1,2} (Lab. Genetics, Grad. Sch. Biostudies, Kyoto Univ.¹, PRESTO, JST²)
- OP17-4** 14:20-14:35 Pelle Modulates dFoxO-Mediated Cell Death in *Drosophila*
○Chenxi Wu (Tongji Uni)
- OP17-5** 14:35-14:50 Metabolic and developmental catastrophe of PPI excess *in vivo* – First unraveled in plants
○Ali Ferjani¹, Shizuka Gunji¹, Kensuke Kawade², Akira Oikawa^{2,3}, Mariko Asaoka⁴, Kazuki Takahashi¹, Masanori Ishida¹, Masayoshi Maeshima⁴, Masami Hirai Y², Kazuki Saito^{2,5}, Hirokazu Tsukaya⁶ (Tokyo Gakugei Univ.¹, RIKEN, CSRS², Facul. Agric., Yamagata Univ.³, Grad. Sch. Bioagr. Sci., Nagoya Univ.⁴, Grad. Sch. Pharm. Sci., Chiba Univ.⁵, Grad. Sch. Sci., Tokyo Univ.⁶)
- OP17-FT1 (P146)** 14:50-14:53 Inhibiting autophagy enhanced anticancer efficacy of recombinant human arginase in melanoma cells
○Ziyu Wang, Dianwen Ju (SP, Fudan Univ)
- OP17-FT2 (P147)** 14:53-14:56 Targeting hedgehog signaling pathway and autophagy overcomes drug-resistance of BCR-ABL positive chronic myeloid leukemia
○Li Yubin, Zeng Xian, Fan Jiajun, Wang Ziyu, Wang Shaofei, Song Ping, Ju Dianwen (DBSP, Fudan Univ.)

OP17-FT3 14:56-14:59 Role of Autophagy in Quantum Dots-induced Nanotoxicity
(P149)
○Jiajun Fan, Sun Yun, Wang Shaofei, Ju Dianwen (DOB FDU)

Oral Presentation & Flash Talk 18: Neural Development 3

June 4 (Thu) 13:30 ~ 15:00 Room C

Chairperson:



Yoshio Wakamatsu
(Tohoku Univ.)

- OP18-1** 13:35-13:50 Loss of Polo ameliorates APP-induced Alzheimer's disease-like symptoms in *Drosophila*
○Fei Peng^{1,2}, Xirui Huang^{1,2}, Yu Zhao^{1,2}, Xingjun Wang^{1,2}, Ying Sun^{1,2}, Pu Ren^{1,2}, Lei Xue^{1,2} (SKSD, Tongji Univ¹, Department of Interventional Radiology, Shanghai 10th People's Hospital, Shanghai²)
- OP18-2** 13:50-14:05 Block of Stathmin4 inhibits G2-M transition and promote neuronal differentiation in dorsal midbrain
○Meng-Ju Lin, Shyh-Jye Lee (Dept. LS, NTU)
- OP18-3** 14:05-14:20 Cell cycle-dependent phosphorylation of Otx2 couples with the repression of cell-cycle inhibitor p27 by Otx2 in early *Xenopus* development
Xenopus の初期発生における転写活性調節に関わる細胞周期依存的な Otx2 のリン酸化修飾の役割
○Yueko Satou¹, Erina Hosono¹, Kohei Minami¹, Takashi Shibano¹, Shuji Takahashi², Makoto Asashima³, Masanori Taira¹ (Dept. of Biol. Sci., Grad. Sch. of Sci., Univ. of Tokyo¹, KOMEX², AIST³)
- OP18-4** 14:20-14:35 Disruption of Tsukushi function result in aberrant neurogenesis in mouse
○Md. Asrafuzzaman Riyadh¹, Ayako Ito¹, Yohei Shinmyo², Athary Felemban¹, Jun Hatakeyama³, Kenji Shimamura³, Kazunobu Sawamoto⁴, Kunimasa Ohta¹ (Dev. Neurobiology Lab. Kumamoto Univ.¹, Bio. Genetics Lab. Kanazawa Univ.², Brain Morphogenesis Lab. Kumamoto Univ.³, Dev. Regenerative Bio. Lab. Nagoya City Univ.⁴)
- OP18-5** 14:35-14:50 Piwi plays a role in regulating cell differentiation in the ascidian central nervous system
ホヤ中枢神経系における Piwi の細胞分化制御
○Kotaro Shimai¹, Takeo Horie², Rui Yokomori³, Koki Nishitsuji⁴, Kenta Nakai³, Takehiro Kusakabe^{1,5} (Inst. Integr. Neurobio., Konan Univ.¹, Shimoda Marine Research Center, Univ. of Tsukuba², HGC, Ins. Med. Sci., Univ. of Tokyo³, OIST⁴, Dep. Bio., Fac. Sci. Eng., Konan Univ.⁵)
- OP18-FT1** 14:50-14:53 A nuclear protein Cfdp1 regulates differentiation of granule cells in zebrafish cerebellum
(P113)
ゼブラフィッシュ小脳顆粒細胞の分化における Cfdp1 の役割
○Takashi Shimizu¹, Shuichi Kani², Young-Ki Bae^{2,3}, Xiaoding Sun¹, Hibi Masahiko¹ (BBC, Nagoya Univ.¹, CDB, RIKEN², NCC, Korea³)
- OP18-FT2** 14:53-14:56 GAD in the AER
(P120)
外胚様性堤防のグルタミン酸脱炭酸酵素
Nozomi Onodera², Hiroshi Nakata¹, ○Satomi Sasaki¹, Isato Araki² (DCBFE, Iwate Univ.¹, UGAS, Iwate Univ.²)

Oral Presentation & Flash Talk 19: Early Embryogenesis 4

June 4 (Thu) 15:15 ~ 16:45 Room A

Chairperson:



Noriyuki Kinoshita
(NIBB)

- OP19-1** 15:20-15:35 Two classes of Sox2-partner factor interactions involved in developmental gene regulation, as indicated by genome-wide ChIP-seq analysis
発生過程での Sox2 の制御標的にはパートナー因子との相互作用のし方が異なる 2 つのタイプがあることが、Sox2 結合領域の網羅的な解析で明らかになった
○Hisato Kondoh¹, Kazunari Matsuda², Tomoyuki Mikami², Andrabi Munazah^{2,3}, Katsushi Yamaguchi⁴, Shuji Shigenobu⁴ (Kyoto SU¹, Osaka U, FBS², RIKEN CDB³, NIBB⁴)
- OP19-2** 15:35-15:50 Fibrillar adhesion and vascular constriction regulate patterned deposition of fibronectin pillars that bridge somites and the endoderm
体節—内胚葉間のピラー様フィブロネクチンの蓄積は線維結合および血管収縮により制御される
○Yuki Sato^{1,2}, Kei Nagatoshi¹, Yuko Imamura³ (Grad. Sch. of Med., Kyushu Univ.¹, JST PRESTO², Grad. Sch. of Sci., Kumamoto Univ.³)
- OP19-3** 15:50-16:05 Quantitative analysis for individual variations in *C. elegans* embryogenesis by an image integration method
画像統合法を利用した線虫 *C. elegans* 胚発生における個体差の定量解析
○Yusuke Azuma¹, Shuichi Onami^{1,2} (RIKEN QBiC¹, JST, NBDC²)
- OP19-4** 16:05-16:20 Analysis of Hedgehog signaling in the early spider embryo using RNAi and RNA-seq techniques
RNA 干渉と RNA-seq を利用したオオヒメグモ初期胚におけるヘッジホッグ・シグナルの解析
○Yasuko Akiyama-Oda, Sawa Iwasaki, Hiroki Oda (JT Biohistory Res. Hall)
- OP19-FT1 (P013)** 16:20-16:23 Efficient Genome Editing in Chicken by CRISPR-Targeted Homologous Recombination
○Kwaku Dad Abu-Bonsrah^{1,2}, Dongcheng Zhang^{1,2}, Don Newgreen² (UoM¹, MCRI²)
- OP19-FT2 (P006)** 16:23-16:26 CRISPR/Cas on RNA in *Xenopus laevis*; antisense morpholino oligomers may not be required any more
Xenopus laevis における RNA を対象とした CRISPR/Cas 法; アンチセンスモルフォリノオリゴマーはもういらぬ
○Kenta Morimoto, Hiroki Kuroda (Environment & Info. Studies, Keio Univ.)
- OP19-FT3 (P018)** 16:26-16:29 Effects of light conditions on the development of circadian rhythm in the suprachiasmatic nuclei and pineal in embryos of a marine fish, flounder (*Paralichthys olivaceus*)
海産魚ヒラメの胚を使った、視交叉上核と松果体における概日リズムの発生と光条件の影響の解析
○Makoto Mogi¹, Susumu Uji², Hayato Yokoi¹, Tohru Suzuki¹ (Grad. Sch. Agr. Sci., Tohoku Univ.¹, Nati. Res. Ins. Aqua., Fis. Res. Age.²)

- OP19-FT4 (P026)** 16:29-16:32 A simple and robust method for establishing homogeneous mouse EpiSC lines by Wnt inhibition
Wnt シグナル抑制による簡便な高品質マウス EpiSC 樹立法の確立
○Michihiko Sugimoto^{1,2}, Masayo Kondo², Yumiko Koga², Hirosuke Shiura², Rieko Ikeda², Susana Chuva de Sousa Lopes³, Kuniya Abe² (IRDA, Kumamoto Univ.¹, BRC, RIKEN², Anat. Embryol., Leiden Univ. Med. Ctr.³)
- OP19-FT5 (P005)** 16:32-16:35 Store-operated calcium entry (SOCE) regulates mesodermal cell motility through the regulation of basal calcium concentration during *Xenopus laevis* gastrulation
アフリカツメガエル胚の原腸陥入における、ストア作動性カルシウム流入の機能解析
○Kentaro Hayashi^{1,2}, Naoto Ueno^{1,2} (NIBB¹, SOKENDAI²)
- OP19-FT6 (P001)** 16:35-16:38 Maternal and zygotic transcriptomes in the appendicularian, *Oikopleura dioica*: Novel protein-encoding genes, intra-species sequence variations, and trans-spliced RNA leader
オタマボヤを用いた母性と胚性の RNAseq: 新規遺伝子、種内変異、トランススプライシング
○Kai Wang, Tatsuya Omotezako, Kanae Kishi, Hiroki Nishida, Takeshi Onuma (Dept of Biol Sci, Osaka Univ)

Oral Presentation & Flash Talk 20: Growth 4 & Metamorphosis

June 4 (Thu) 15:15 ~ 16:45 Room B

Chairperson:



Takashi Nishimura
(RIKEN CDB)

- OP20-1** 15:20-15:35 Role of bone stem cells in growth, maintenance and regeneration of calcified tissues in zebrafish
ゼブラフィッシュの石灰化組織の成長、維持および再生における骨幹細胞の役割
○Kazunori Ando¹, Genbu Abe², Koichi Kawakami², Akira Kudo¹, Atsushi Kawakami¹ (Tokyo Tech¹, NIG²)
- OP20-2** 15:35-15:50 An ancient role for Notch in the evolution of cellular transformation in animals
○Nagayasu Nakanishi¹, Gemma Richards², Sandie Degan¹, Bernie Degan¹ (Univ of Queensland¹, Univ of Bergen²)
- OP20-3** 15:50-16:05 Life cycle regulation in Cnidaria and the origin of a jellyfish body plan
○Konstantin Khalturin¹, Chuya Shinzato¹, Maria Khalturina¹, Manabu Fujie², Ryo Koyanagi², Hiroki Goto², Noriyuki Satoh¹ (Marine Genomics Unit, Okinawa Institute of Science and Technology Graduate University, Onna, Okinawa 904-0495, Japan¹, DNA Sequencing Section, Okinawa Institute of Science and Technology Graduate University, Onna, Okinawa 904-0495, Japan²)
- OP20-4** 16:05-16:20 Optimal growth schedule of holometabolous insects
完全変態昆虫の最適成長スケジュール
○Ken-ichi Hironaka^{1,2}, Yoshihiro Morishita¹ (RIKEN QBiC¹, JSPS Research Fellowships for Young Scientists²)

- OP20-5** 16:20-16:35 A new Zn-finger transcriptional factor is essential for developmental transition via regulating steroid hormone biosynthesis in the fruit fly *Drosophila melanogaster*
 ショウジョウバエにおけるステロイドホルモン生合成に関わる新規ジンクフィンガー転写因子の機能解析
 °Outa Uryu¹, Tatsuya Komura-Kawa², Ryusuke Niwa¹ (Fac. Sch. Life and Env. Sci., Univ. Tsukuba¹, Grad. Sch. Life and Env. Sci., Univ. Tsukuba²)
- OP20-FT1 (P055)** 16:35-16:38 A theoretical study on mechanisms of cell extrusion process in growing epithelial tissues
 °Sangwoo Lee, Yoshihiro Morishita (RIKEN QBiC)
- OP20-FT2 (P141)** 16:38-16:41 Prenatal regression of the trophotaenial placenta in a viviparous fish, *Xenotoca eiseni*
 グーデア科胎生魚ハイランドカープの栄養リボンは出生前に細胞死により退縮する
 °Atsuo Iida¹, Toshiyuki Nishimaki², Atsuko Sehara-Fujisawa¹ (Ins. for Front. Med. Sci., Kyoto Univ.¹, Kitasato Univ. Sch. of Med.²)
- OP20-FT3 (P144)** 16:41-16:44 Understanding the mechanisms of dimorphic leaf development of aquatic plants
 水草の二面的な葉形態形成メカニズムの解明
 °Hiroyuki Koga, Hirokazu Tsukaya (Univ. Tokyo)

Oral Presentation & Flash Talk 21: Neural Development 4

June 4 (Thu) 15:15 ~ 16:45 Room C

Chairperson:



Tatsumi Hirata
(NIG)

- OP21-1** 15:20-15:35 Dynamic migratory behaviors of *gbx2*-expressing cells during brain compartmentalization—4D imaging in zebrafish embryos—
 脳領域化における *gbx2* 発現細胞のダイナミックな挙動—ゼブラフィッシュを用いた4次元イメージング解析—
 °Sachiko Tsuda¹, Kyo Yamasu² (R&D Bureau, Saitama Univ.¹, Grad. Sch. of Sci. and Tech., Saitama Univ.²)
- OP21-2** 15:35-15:50 Blood vessel-guided cell migration in the developing cerebral cortex
 発生期大脳皮質における血管に沿った細胞移動の解析
 Hidenori Tabata^{1,2}, Megumi Sasaki¹, Yutaka Inaguma², Hidenori Ito², Hirohide Takebayashi³, Masatsugu Ema⁴, Kazuhiro Ikenaka⁵, Koh-ichi Nagata², °Kazunori Nakajima¹ (Dept. of Anat., Keio Univ. Sch. of Med.¹, Department of Molecular Neurobiology, Institute for Developmental Research, Aichi Human Service Center², Division of Neurobiology and Anatomy, Graduate School of Medical and Dental Sciences, Niigata University³, Department of Stem Cells and Human Disease Models, Research Center for Animal Life Science, Shiga University of Medical Science⁴, Division of Neurobiology and Bioinformatics, National Institute for Physiological Sciences⁵)
- OP21-3** 15:50-16:05 Novel mechanism for Interkinetic Nuclear Migration of neural progenitor cell
 大脳原基の神経系前駆細胞動態に関わる新規メカニズム

○Tomoyasu Shinoda¹, Arata Nagasaka¹, Ryo Higuchi², Yoshiaki Minami², Takashi Miura³, Yugo Fukazawa⁴, Yasuhiro Inoue⁵, Taiji Adachi⁵, Masaharu Nagayama², Takaki Miyata¹ (Nagoya Univ. Graduate School of Medicine¹, RIES, Hokkaido Univ.², Dept. Anatomy, Kyusyu Univ.³, Fac. Med. Science, Univ. of Fukui⁴, Dept. Biomechanics, Inst. Frontier Science, Kyoto Univ.⁵)

- OP21-4** 16:05-16:20 HEARs: Is it chicken-specific, or a general phenomenon?
○Nozomi Onodera¹, Hiroshi Nakata², Isato Araki^{1,2} (UGAS, Iwate Univ¹, Dept Chem Bioeng, Fac Eng, Iwate Univ²)
- OP21-5** 16:20-16:35 Wnt7b expressed by neurons born on embryonic day 11.5 of mouse brain is necessary for the normal brain morphogenesis
マウス胎生 11.5 日生まれの神経細胞に発現している Wnt7b は、正常な脳の形態形成において必要である
○Mitsuhiro Hashimoto^{1,2} (Dep of Neuroanat Fukushima Med Univ¹, Dep of Cell Biol Med Nagoya Univ²)
- OP21-FT1 (P104)** 16:35-16:38 Functional interaction between Latrophilin-2 and Teneurin-2/4 in the migration of neural crest cells
Latrophilin-2 と Teneurin-2/4 の神経堤細胞遊走における機能的相互作用
○Kousuke Tanegashima¹, Natsumi Yokote^{1,2}, Marianna Suzuki^{1,2}, Tatsuo Michiue³, Takahiko Hara^{1,2} (Stem Cell Project, Tokyo Metropol. Inst. Med. Sci.¹, Grad. Sch. of Tokyo Med. Dent Univ.², Dep. of Life Sci., Grad. Sch. of Arts and Sci., Univ. of Tokyo³)
- OP21-FT2 (P112)** 16:38-16:41 Hydra peduncle nervous system has primitive functions of the brain
ヒドラ柄部の神経系は原始的な脳機能をもっている
○Hiroshi Shimizu¹, Xiaoming Zhang², Takashi Gojobori¹ (KAUST¹, KUMC²)

Poster Sessions

PXXX is Poster Award candidate.

June 3 (Wed) 12:00-June 5 (Fri) 13:30

Discussion 1: June 3 (Wed) 17:00-17:45 odd number, 17:45-18:30 even number

Discussion 2: June 4 (Thu) 17:00-18:00 even number, 18:00-19:00 odd number

- P001 (OP19-FT6)** Maternal and zygotic transcriptomes in the appendicularian, *Oikopleura dioica*: Novel protein-encoding genes, intra-species sequence variations, and trans-spliced RNA leader
オタマボヤを用いた母性と胚性の RNAseq: 新規遺伝子、種内変異、トランススプライシング
○Kai Wang, Tatsuya Omotezako, Kanae Kishi, Hiroki Nishida, Takeshi Onuma (Dept of Biol Sci, Osaka Univ)
- P002** G protein-coupled receptors Xflop1 and Xflop2 are essential for head formation by inhibiting Wnt/ β -catenin signaling in the *Xenopus* embryo
カエル胚において Xflop1 と Xflop2 は Wnt/ β -catenin シグナルを抑制し頭部形成に寄与する
○Asuka Miyagi¹, Takefumi Negishi², Takamasa Yamamoto², Naoto Ueno^{1,2} (SOKENDAI¹, NIBB²)
- P003** Regulation of Wnt signaling pathway by mediating Dishevelled for degradation during *Xenopus* development
○Hyeyoon Lee, Seong-Moon Cheong, Tabinda Sidrat, Byeongrak Keum, Jin-Kwan Han (Dept. of Life Sciences, POSTECH, Republic of Korea)
- P004** Identification of a novel tail organizing factor that integrates morphogen signaling pathways in *Xenopus*
モルフォゲンシグナルの統合に働く新しい尾部オーガナイザー因子の同定と解析
○Hitoshi Yoshida¹, Maya Okada¹, Kimiko Takebayashi-Suzuki¹, Naoto Ueno², Atsushi Suzuki¹ (Inst. Amphibian Biol., Grad. Sch. Sci., Hiroshima Univ.¹, Div. Morph., NIBB, Japan²)
- P005 (OP19-FT5)** Store-operated calcium entry (SOCE) regulates mesodermal cell motility through the regulation of basal calcium concentration during *Xenopus laevis* gastrulation
アフリカツメガエル胚の原腸陥入における、ストア作動性カルシウム流入の機能解析
○Kentarō Hayashi^{1,2}, Naoto Ueno^{1,2} (NIBB¹, SOKENDAI²)
- P006 (OP19-FT2)** CRISPR/Cas on RNA in *Xenopus laevis*; antisense morpholino oligomers may not be required any more
Xenopus laevis における RNA を対象とした CRISPR/Cas 法; アンチセンスモルフォリノオリゴマーはもういらぬ
○Kenta Morimoto, Hiroki Kuroda (Environment & Info. Studies, Keio Univ.)
- P007** Characterization of the insulin-like growth factor binding protein family in *Xenopus tropicalis*
ネッタイツメガエルにおけるインスリン様成長因子結合タンパク質 (Igfbp) の解析
○Yoshikazu Haramoto¹, Tomomi Oshima¹, Shuji Takahashi², Yuzuru Ito¹ (SCRC, AIST¹, Inst. for Amphibian Biol., Hiroshima Univ.²)

- P008** MicroRNA 145 mediates PGRN signaling in zebrafish liver outgrowth
 ◦Ya-Wen Li^{1,2}, Keng-Yu Chiang², Yen-Hsing Li², Jen-Leih Wu² (GILS, NDMC¹, ICOB, Academia Sinica²)
- P009** Isolation and culture of chicken primordial germ cells
 ◦Chiao-Yun Lou¹, Yu-che Chiu¹, Jenn-Fa Liou², Lih-Ren Chen², Chih-Feng Chen¹, Pin-Chi Tang¹ (DAS, Chung Hsing Univ.¹, Physiology Division, Livestock Research Institute²)
- P010** The role of maternal Nodal signaling in mouse embryos
 マウス胚における母性因子 Nodal シグナルの役割
 ◦Katsuyoshi Takaoka, Keniti Matsubara, Hiroshi Hamada (Osaka university FBS)
- P011** Mouse Inscuteable regulates cell fate decision during mouse ES cells differentiation
 マウス Inscuteable による ES 細胞の分化制御
 ◦Riki Ishibashi^{1,2}, Satoshi Kozuki^{1,2}, Fumiko Toyoshima^{1,2} (Dept. of Cell and Dev., Grad. Sch. of Bio., Kyoto Univ.¹, Inst. Virus Res., Kyoto Univ.²)
- P012 (OP16-FT2)** The Nodal signaling pathway controls left-right asymmetric development in amphioxus
 Vladimir Soukup², ◦Luok Wen Yong¹, Tsai-Ming Lu¹, Song-Wei Huang¹, Zbynek Kozmik², Jr-Kai Yu^{1,3} (ICOB, AS¹, IMG, ASCR², IONTU³)
- P013 (OP19-FT1)** Efficient Genome Editing in Chicken by CRISPR-Targeted Homologous Recombination
 ◦Kwaku Dad Abu-Bonsrah^{1,2}, Dongcheng Zhang^{1,2}, Don Newgreen² (UoM¹, MCRI²)
- P014** Oct60 expression in blood cells of *Xenopus laevis*
 アフリカツメガエルの血液中における Oct60 発現細胞の解析
 ◦Rena Sato, Fumika Kouno, Tsutomu Kinoshita (Dept. Life. Sci., Rikkyo Univ.)
- P015 (OP23-FT1)** Larval fin formation in amphibians is interfered with the GABA signaling
 両生類幼生のヒレ構造形成は GABA シグナリングに阻害される
 ◦Yuki Yamasaki¹, Tomoyo Furukawa², Hiroki Kuroda¹ (IAB, Keio Univ¹, Shizuoka Univ²)
- P016 (OP03-FT2)** Phosphatase of regenerating liver-3 is essential for the early development of zebrafish embryos
 ◦Ting-Fang Wang¹, Te-Hsien Liu¹, Yau-Hung Chen², Ming-Der Lin^{1,3} (Dept LS, TCU, Taiwan¹, Dept Chemistry, TKU, Taiwan², Dept MBHG, TCU, Taiwan³)
- P017** Cdk12 deficiency causes mouse embryonic lethality during pre-gastrula stage
 ◦Hsien-Chia Juan, Yung Lin, Ming-Ji Fann (Department of Life Sciences and Institute of Genome Sciences, National Yang-Ming University, Taipei, Taiwan)
- P018 (OP19-FT3)** Effects of light conditions on the development of circadian rhythm in the suprachiasmatic nuclei and pineal in embryos of a marine fish, flounder (*Paralichthys olivaceus*)
 海産魚ヒラメの胚を使った、視交叉上核と松果体における概日リズムの発生と光条件の影響の解析
 ◦Makoto Mogi¹, Susumu Uji², Hayato Yokoi¹, Tohru Suzuki¹ (Grad. Sch. Agr. Sci., Tohoku Univ.¹, Nati. Res. Ins. Aqua., Fis. Res. Age.²)
- P019** RNA-Seq-based transcriptome analysis of early embryos in the common house spider *Parasteatoda*
 RNA-Seq を用いたオオヒメグモ初期胚のトランスクリプトーム解析
 ◦Sawa Iwasaki, Yasuko Akiyama-Oda, Hiroki Oda (BRH)
- P020 (OP16-FT1)** A disintegrin and metalloprotease 12 (ADAM12) involves to the body growth at juvenile stage in zebrafish

膜型メタロプロテアーゼ ADAM12 は稚魚期のゼブラフィッシュの発育に関与する

○Yudai Tokumasu, Atsuo Iida, Zi Wang, Atsuko Sehara-Fujisawa (Ins. for Front. Med. Sci., Kyoto Univ.)

P021

Xenopus Ubiquitin carboxy-terminal hydrolase 37 (XUch37) regulates transcriptional activity of XTcfl in the Wnt/b-catenin pathway

○Wonhee Han, Seungjoon Lee, Jin-Kwan Han (Department of Life Sciences, POSTECH, South Korea)

P022

Formation and function of vegetal microtubules for zebrafish dorsal determination

ゼブラフィッシュ背腹決定における植物極微小管の形成とその機能

○Hiromu Hino¹, Tsubasa Aoki¹, Akiko Nakanishi², Ryoko Seki², Takashi Shimizu^{1,2}, Masahiko Hibi^{1,2} (Grad. Sch. Sci., Nagoya Univ.¹, BBC, Nagoya Univ.²)

P023

The establishment of the determination of left-right asymmetry in sea urchin embryo

バフンウニ胚における左右非対称性決定機構

○Ayumi Takemoto¹, Tatsuo Miyamoto², Akinori Awazu^{1,3}, Takashi Yamamoto^{1,3}, Naoaki Sakamoto^{1,3} (Dept. of Math. and Life Sci., Hiroshima Univ.¹, Dept. of Genet. and cell Biol., Res. Inst. for Eadiation Biol. and Med., Hiroshima Univ.², RcMcD, Hiroshima Univ.³)

P024

Anterior-posterior (A-P) axis formation in soft-shelled turtle and gecko

スッポンとヤモリにおける前後軸形成

○Eriko Kajikawa¹, Michio Yoshida¹, Daisuke Kurokawa^{1,2}, Daisuke Yamamoto^{1,4}, Miyuki Noro¹, Shigehiro Kuraku³, Kensaku Kobayashi⁴, Hiroshi Kiyonari⁴, Shinichi Aizawa¹ (Lab. for Vertebrate Body Plan, RIKEN CDB¹, MMBS, Univ. of Tokyo², Phyloinformatics Unit, RIKEN CLST³, Animal Resource Development Unit, RIKEN CLST⁴)

P025

Anterior-Posterior Axis Formation in the marsupial, *Monodelphis domestica*

有袋類ハイイロジネズミオポッサムにおける前後軸形成機構の解析

○Daisuke Yamamoto¹, Michio Yoshida², Eriko Kajikawa², Kunihiro Suzuki³, Setsunosuke Ihara⁴, Hiroshi Kiyonari¹, Shinichi Aizawa² (Animal Resource Development Unit, CLST RIKEN¹, VBP, CDB RIKEN², Nihon Univ. Sch. of Dentistry at Matsudo³, Fac. life & Environ. Sci. Shimane Univ.⁴)

P026

(OP19-FT4)

A simple and robust method for establishing homogeneous mouse EpiSC lines by Wnt inhibition

Wnt シグナル抑制による簡便な高品質マウス EpiSC 樹立法の確立

○Michihiko Sugimoto^{1,2}, Masayo Kondo², Yumiko Koga², Hirosuke Shiura², Rieko Ikeda², Susana Chuva de Sousa Lopes³, Kuniya Abe² (IRDA, Kumamoto Univ.¹, BRC, RIKEN², Anat. Embryol., Leiden Univ. Med. Ctr.³)

P027

(OP06-FT1)

The deep roots of vertebrate genomic evolution: insights from the embryonic transcriptome and Hox genes of the hagfish

○Juan Pascual-Anaya¹, Antonio Perez-Pulido², Fumiaki Sugahara³, Shigeru Kuratani¹ (RIKEN¹, CABD, UPO-CSIC-JA², HCM³)

P028

(OP06-FT2)

Hox gene cluster structure in *Halocynthia roretzi* genome

マボヤの Hox 遺伝子クラスター

○Yuka Sekigami¹, Asao Fujiyama², Nori Satoh³, Hidetoshi Saiga¹ (TMU¹, NIG², OIST³)

P029

(OP01-FT4)

P2Y4 receptor is involved in head formation in *Xenopus laevis* embryo

P2Y4 受容体はアフリカツメガエル胚の頭部形成に関連する

○Ayano Harata¹, Haruka Nishida¹, Takashi Yamamoto², Chikara Hashimoto¹ (BRH¹, Department of Mathematical and Life Sciences, Graduate School of Science, Hiroshima University²)

- P030** Regulation of cell adhesion by paraxial protocadherin (PAPC) ubiquitination during *Xenopus* gastrulation
 アフリカツメガエル原腸形成における paraxial protocadherin (PAPC) ユビキチン化による細胞接着制御
 ○Noriyuki Kinoshita¹, Masatake Kai² (Dept. of Dev. Biol., NIBB¹, Grad. Sch. of Med., Osaka City Univ.²)
- P031 (OP07-FT6)** Blood flow and vascular remodeling: *in vivo* live-imaging analyses of individual endothelial cells
 生体内血管リモデリング：ライブイメージング解析による血管内皮細胞の挙動と血流との関係
 ○Yuta Takase, Yoshiko Takahashi (Dept. of Zoology, Grad. Sch. of Sci. Kyoto Univ.)
- P032 (OP10-FT1)** Wnt signal regulates morphological change of cells in the mouse spinal cord
 ○Takuma Shinozuka^{1,2}, Ritsuko Takada², Shinji Takada^{1,2} (Dept. Basic Biology, SOKENDAI¹, NIBB²)
- P033** Study of Pax6-deficient mosaic mice generated by the CRISPR/Cas system
 CRISPR/Cas システムによる Pax6 モザイク欠損マウスの解析
 ○Akihiro Yasue¹, Hitomi Kono², Tetsuya Bando², Yoshiyasu Ishimaru³, Junji Inoue², Takahito Watanabe³, Seiichi Oyadomari⁴, Sumihare Noji⁵, Taro Mito³, Hideyo Ohuchi², Eiji Tanaka¹ (Dept. of Orthod., Inst. of Health Biosci., Tokushima Univ.¹, Dept. of Cytol and Histol., Okayama Univ.², Dept. of Life Syst., Inst. of Tech. and Sci., Tokushima Univ.³, Div. of Mol. Biol., Inst. for Gen. Res., Tokushima Univ.⁴, Tokushima Univ.⁵)
- P034** Semaphorin3E-PlexinD1 signaling is important for coronary artery formation
 Semaphorin3E-PlexinD1 シグナルは冠動脈形成に重要である
 ○Kazuaki Maruyama¹, Sachiko Miyagawa-Tomita², Yuichiro Arima³, Daiki Seya¹, Rieko Asai¹, Akiyoshi Uemura⁴, Yutaka Yoshida⁵, Mann Fanny⁶, Yukiko Kurihara¹, Hiroki Kurihara¹ (Dept. of Physiological Chemistry and Metabolism, Graduate School of Med., The Univ. of Tokyo¹, Dept. of Pediatric Cardiology, Tokyo Women's Medical Univ², Dept. of Cardiovascular Medicine, Faculty of Life Sci., Kumamoto Univ.³, Dept of Retinal vessels Biology, Graduate School of Med., Nagoya City Univ.⁴, Div. of Developmental Biology, Cincinnati Children's Hospital Medical Center⁵, Dept. of Developmental Biology, Univ. Aix-Marseille⁶)
- P035 (OP13-FT1)** *Six4* and *Six5* are required for ventral body wall closure and morphogenesis of the primary body wall
 転写制御因子 Six4/Six5 は腹壁閉鎖と一次腹壁の形態形成に必須である
 ○Masanori Takahashi, Kiyoshi Kawakami (Div. of Biol. Cent. for Mol. Med. Jichi Med. Univ.)
- P036** Interaction between lymphatic vasculature and peripheral nerve during development of medaka
 メダカの発生過程におけるリンパ管と神経の相互作用
 ○Tomonori Deguchi¹, Sumio Isogai², Hiroshi Shimoda³, Takashi Kawasaki¹, Shunsuke Yuba¹ (AIST¹, Department of Anatomy, School of Medicine, Iwate Medical University², Department of Anatomical Science, Hirosaki University Graduate School of Medicine and School of Medicine³)
- P037** Genetic analysis of mouse Hammer toe (*Hm*) mutant reveals long-range enhancer modulation
 マウス突然変異体 Hammer toe (*Hm*) によって明らかになる長距離エンハンサーの調節メカニズム
 ○Kousuke Mouri, Tomoko Sagai, Takanori Amano, Toshihiko Shiroishi (NIG)
- P038** Functional analysis of the limb mesenchymal enhancer R3 of *Fgf10* and the regulation of transcription

Fgf10 の枝芽間充織エンハンサー R3 の機能と転写制御

○Atsushi Kuroiwa, Chisa Andoh, Ami Uemura, Yo-Ichi Shiraishi (Div. of Biol. Sci., Grad. Sch. of Sci., Nagoya Univ.)

- P039** The role of LGR4 in tooth development
歯胚発生における LGR4 の機能解析
○Yukiko Yamakami, Tomoyo Kida, Kazunori Oyama, Yasuaki Mohri, Katsuhiko Nishimori (Lab. of Mol. Biol., Grad. Sch. of Agri. Sci., Tohoku Univ.)
- P040** Analysis on the suppressors of *as2 rpl4d* reveals relationship among genes involved in the ribosomal protein-dependent regulation of leaf polarity
as2 rpl4d の抑制変異体の解析から示唆されるリボソーム遺伝子を介した葉の背腹性制御に關与する因子間の關係性
○Masahiro Takahara¹, Hirokazu Tsukaya², Gorou Horiguchi^{1,3} (Dep. Life Sci., Coll. Sci., Rikkyo Univ.¹, Grad. Sch. Sci., Univ. Tokyo², Res. Cntr. Life Sci., Coll. Sci., Rikkyo Univ.³)
- P041 (OP04-FT1)** O-Fucosyltransferase activity of Pofut1 is essential to control its own protein stability and regulate Notch1 signaling activity during somitogenesis
Pofut1 糖鎖修飾活性は体節形成時の Pofut1 タンパク質の安定化と Notch シグナルの活性化に必要である
○Rieko Ajima, Yumiko Saga (NIG)
- P042 (OP04-FT3)** Heterochrony in initiation of *Gdf11* expression specifies unique posterior appendage positioning in vertebrates
Gdf11 の発現開始タイミングのヘテロクロニーが脊椎動物の腹鰭・後肢の位置の多様性を生み出す
○Yoshiyuki Matsubara¹, Ayumi Hattori², Yusuke Watanabe², Toshihiko Ogura², Atsushi Kuroiwa¹, Takayuki Suzuki^{1,3} (Div. of Biol. Sci., Grad. Sci. of Sci., Nagoya Univ.¹, IDAC, Tohoku Univ.², JST PRESTO³)
- P043 (OP07-FT5)** Anisotropic cell growth causes looping of the developing heart
心臓ループの形成は細胞の異方的増殖による
○Hisao Honda^{1,2} (Kobe Univ. Medicine¹, RIKEN CDB²)
- P044 (OP01-FT5)** Oikoplasmic epidermal patterning in the trunk of the appendicularian, *Oikopleura dioica*
ワカレオタマボヤ *Oikopleura dioica* におけるハウス形成表皮細胞のパターン形成
○Kanae Kishi, Momoko Hayashi, Takeshi Onuma, Hiroki Nishida (Osaka University)
- P045 (OP01-FT6)** Internal and external structures of the appendicularian, *Oikopleura dioica*
走査型電子顕微鏡による脊索動物ワカレオタマボヤの外部構造・内部構造の観察
○Takeshi Onuma, Miho Isobe, Hiroki Nishida (Dep. Biol. Sci., Osaka Univ.)
- P046** On the mechanisms that generate morphological diversity of retinal photoreceptor cells: possible contribution of opsin subtypes
メダカ視細胞の形態多様性を生み出す要因の検討：オプシンが及ぼす影響について
○Erika Hosokawa, Natsumi Akazawa, Hiroki Kashiwagi, Yutaka Daido, Atsushi Kuhara, Daisuke Honda, Takehiro Kusakabe (Inst. Integr. Neurobiol., Grad. Sch. Nat. Sci., Konan Univ.)
- P047 (OP05-FT1)** Elevated CO₂ promotes satellite stomatal production via DNA replication in *Arabidopsis* cotyledons
高 CO₂ 環境下における気孔発生の空間配置制御機構の解析

○Takumi Higaki, Kae Akita, Seiichiro Hasezawa (GSFS, The Univ. Tokyo)

P048
(OP07-FT1)

Impaired Hippo signaling promotes Rho1-JNK-dependent growth

○Yujun Chen, Xianjue Ma, Wenyan Xu, Nana Wu, Lei Xue (SLST, Tongji Univ.)

P049

In vivo analysis of competitive apoptosis during epidermal replacement of *Drosophila*

ショウジョウバエ表皮入れ替わりにおける競合的なアポトーシスの *In vivo* 解析

○Yuka Hayashi^{1,2}, Erina Kuranaga¹ (RIKEN CDB¹, Grad. Sch. of Biostudies, Kyoto Univ.²)

P050
(OP05-FT2)

Revealing the function of EPF-peptides

EPF ペプチドの機能解析

○Rene H. Wink¹, Naoyuki Uchida¹, Keiko U. Torii^{1,2} (ITbM Nagoya University¹, HHMI-GBMF²)

P051

SUZAKU1, a NAC-domain transcription factor gene promotes leaf abaxialization in response to *as2*-enhancer mutations in *Arabidopsis thaliana*

シロイヌナズナの NAC 型転写因子遺伝子 *SUZAKU1* は *as2* エンハンサー変異による葉の背軸化の促進に関わる

○Gorou Horiguchi^{1,2}, Mikito Inoue¹, Hidenori Masuda¹, Miyuki Nakata², Hirokazu Tsukaya³ (Dept. Life Sci., Coll. Sci., Rikkyo Univ.¹, Res. Centr. Life Sci, Coll. Sci., Rikkyo Univ.², Grad. Sch. Sci., Univ. Tokyo³)

P052

Transcriptome analysis of zebrafish *polr1c* mutant revealed the importance of p53 pathway in Treacher Collins Syndrome

Ernest ML Kwong, ○William KF Tse (Dept. of Biol, HKBU)

P053
(OP02-FT1)

Zebrafish model revealed the pathogenesis of POLR1C Type 3 Treacher Collins Syndrome

○Ernest ML Kwong, William KF Tse (Dept. of Biol, HKBU)

P054

Cell shape homeostasis against heterogeneous proliferation during epithelial cell competition

細胞競合の数理モデル：分裂速度の差により生じる恒常性の破綻とその維持

○Arisu Tsuboi¹, Shizue Ohsawa², Tatsushi Igaki², Koichi Fujimoto¹ (Dept. of Biol. Sci., Grad. Sch. of Sci., Univ. of Osaka¹, Grad. Sch. of Biostudies, Univ. of Kyoto²)

P055
(OP20-FT1)

A theoretical study on mechanisms of cell extrusion process in growing epithelial tissues

○Sangwoo Lee, Yoshihiro Morishita (RIKEN QBiC)

P056
(OP07-FT3)

Dlx5-overexpression mice show a homeotic transformation in the upper jaw into lower jaw-like structures

Dlx5 過剰発現マウスにおける上顎の下顎構造へのトランスフォーメーション

○Miki Shimizu¹, Taro Kitazawa¹, Yumiko Kawamura¹, Nicolas Narboux-Nme², Giovanni Levi², Yasunobu Uchijima¹, Yukiko Kurihara¹, Hiroki Kurihara¹ (Dept. Physiol. Chem. & Metab., Grad. Sc. of Med., Univ. of Tokyo¹, UMR7221 CNRS-MNHN²)

P057
(OP10-FT3)

Switchback of the spicule transport during local retraction of basal epithelium in BIO-treated sponges

阻害剤 BIO 存在下の培養で生じるカワカイメン個体の部分的な退縮において骨片はスイッチバック後に立てられる

○Kouji Kishimoto, Kiyokazu Agata, Noriko Funayama (Grad. School of Sci. Kyoto University)

P058

Mechanism of restricted initial activation of sonic hedgehog expression in the limb bud

四肢における Sonic hedgehog 遺伝子発現開始の限局メカニズム

○Haruka Matsubara¹, Daisuke Saito², Koji Tamura¹ (GSLs, Tohoku Univ.¹, Frontier Research Institute for Interdisciplinary Sciences, Tohoku University²)

- P059**
(OP04-FT2) Insulation of *Lmbr1* expression from *Shh* enhancers in the mouse embryo
Shh 遺伝子の組織特異的エンハンサーから遮蔽された *Lmbr1* の発現
○Takanori Amano, Toshihiko Shiroishi (NIG)
- P060**
(OP13-FT2) Observation of FGF response in lung epithelium and modeling for branching morphogenesis
マウス肺の分岐構造を形成する FGF 応答の観察とモデル化
○Hisako Imamura-Takigawa, Takashi Miura (Dept. Anat. Cell Biol., Grad. Sch. Med., Kyushu Univ.)
- P061**
(OP13-FT3) Establishment of spicule mechanical wobbling system in *E. fluviatilis*
カワカイメンにおける骨片を機械的に揺らす実験系の構築
○Sota Takagi, Kotoe Kawai, Kiyokazu Agata, Noriko Funayama (Dep. Biophysics, Grad. School of Science, Kyoto Univ.)
- P062**
(OP01-FT1) Evolutionary relevance between mating behavior and LR asymmetric rotation of male genitalia in Diptera
双翅目昆虫における生殖行動と雄生殖器の左右非対称な回転の間の進化的な関連
○Momoko Inatomi, Kenji Matsuno (Dept. of Biol. Sci., Grad School of Sci., Osaka Univ.)
- P063**
(OP01-FT3) A non-coding sequence conserved specifically in avian lineage acts as a *cis*-regulatory element during wing development
翼の発生過程においてシス制御因子としてはたらく、鳥類特異的ノンコーディング配列の特定
○Ryohei Seki¹, Cai Li², Tomohiko Sato³, Mao Kondo³, Haruka Matsubara³, Daisuke Saito^{3,4}, Shiro Egawa³, Jiang Hu², Luohao Xu², Hailin Pan², Naoki Irie⁵, Guojie Zhang², Koji Tamura³, Toshihiko Shiroishi¹ (Mamm. Genet. Lab., NIG¹, China National Genebank, BGI-Shenzhen², Grad. Sch. of Life Sci., Tohoku Univ.³, Front. Res. Inst. for Interdis. Sci., Tohoku Univ.⁴, Grad. Sch. of Sci., Univ. of Tokyo⁵)
- P064**
(OP10-FT2) Infrared laser-evoked gene operator (IR-LEGO) method is applicable to study organ morphogenesis in developing and regenerating amphibian
IR-LEGO (赤外線による局所遺伝子発現法) の両生類における発生・再生研究への応用
○Aiko Kawasumi^{1,2}, Toshinori Hayashi³, Sinichi Hayashi^{2,4}, Yasuhiro Kamei^{5,6}, Yoshihiro Morishita¹, Koji Tamura², Hitoshi Yokoyama^{2,7} (RIKEN QBiC¹, Tohoku University², Tottori University³, University of Minnesota⁴, NIBB⁵, SOKENDAI⁶, Hirosaki University⁷)
- P065** Mechanism of shortcut prevention during retinal blood vessel development
網膜血管発生における短絡防止のメカニズム
Atsushi Tero³, Akiyoshi Uemura², ○Takashi Miura¹ (Dept. of Anat. & Cell Biol., Kyushu Univ. Grad. Sch. of Med.¹, Grad. Sch. Med. Sci., Nagoya City Univ.², IMI, Kyushu Univ.³)
- P066** Mathematical analysis of neural tube closure based on pulsed apical constriction
パルス性の頂端収縮に基づく神経管閉鎖の数理解析
○Makoto Suzuki¹, Hiroshi Koyama², Toshihiko Fujimori², Naoto Ueno¹ (NIBB¹, NIBB²)
- P067**
(OP01-FT2) Efficient embryonic culture method for the Japanese striped snake, *Elaphe quadrivirgata*, and its early developmental stages
シマヘビ胚のステージ表の作成と体外培養法の確立
Yoshiyuki Matsubara¹, Atsushi Sakai², Atsushi Kuroiwa¹, ○Takayuki Suzuki¹ (Div. of Biol. Sci., Nagoya Univ.¹, Japan Snake Institute²)

- P068**
(OP07-FT2) Regulation of asymmetric cell division by three distinct Wnt pathways in *C. elegans*
C. elegans における 3 つの異なる Wnt シグナル伝達経路による非対称性細胞分裂の調節
○Yinhua Jin, Masako Yokoo, Hitoshi Sawa (NIG)
- P069**
(OP07-FT4) ChIP-Atlas: Comprehensive database for visualizing all published ChIP-seq data
ChIP-Atlas: 既報の ChIP-seq 実験を全て可視化するためのデータベース
○Shinya Oki¹, Tazro Ohta², Go Shioi³, Chikara Meno¹ (Grad. Sch Med. Sci., Kyushu Univ.¹, DBCLS, ROIS², RIKEN CLST³)
- P070** Secondary neurulation: stem cell-like behavior of caudal neural tube-forming cells
Secondary neurulation: 尾部神経管を形成する細胞たちの幹細胞様の挙動
Teruaki Kawachi¹, Eisuke Shimokita², Yoshiko Takahashi¹ (Kyoto Univ¹, NAIST²)
- P071** Role of *Six1* for cell proliferation in the periodontal ligament tissue
歯根膜の細胞増殖における *Six1* の役割
○Tatsuki Kawasaki^{1,2}, Masanori Takahashi², Yoshiyuki Mori¹, Kiyoshi Kawakami² (Oral and Maxillo-facial Surgery, Jichi Med¹, Div of Biol, CMM, Jichi Med²)
- P072**
(OP08-FT1) Roles of *sox10* and its possible interaction with *sox5* in pigment cell development of medaka
メダカの色素細胞発生において *sox10* とその *sox5* との相互作用が担う役割
Yusuke Nagao¹, Hiroyuki Takada^{1,2}, Ryoko Seki¹, Yasuhiro Kamei³, Ikuyo Hara⁴, Yoshihito Taniguchi⁵, Kiyoshi Naruse⁴, Robert Kelsh⁶, Masahiko Hibi^{1,2}, Hisashi Hashimoto^{1,2} (Biosci. & Biotechnol. Ctr., Nagoya Univ.¹, Grad. Sch. of Sci., Nagoya Univ.², Spectrography Bioimaging Facility, NIBB³, Lab. of Biores., NIBB⁴, Dept. of Preventive Medicine Public Health, Sch. of Med., Keio Univ.⁵, Dept. of Biol. Biochem., Univ. of Bath⁶)
- P073**
(OP08-FT2) Four-dimensional imaging of lung epithelial stem cell in mouse development
発生過程におけるマウス肺幹細胞の 4 次元イメージング
○Masafumi Noguchi, Mitsuru Morimoto (RIKEN CDB)
- P074**
(OP08-FT3) A non-proliferating tissue enlargement controlling the trachea tubulogenesis
細胞増殖に依存しないマウス気管発生
○Keishi Kishimoto, Mitsuru Morimoto (RIKEN CDB)
- P075**
(OP11-FT1) Neofunctionalization of *elastin* gene demarcates teleost heart outflow tract by regulating cell fate determination via YAP
elastin 遺伝子の重複と新規機能獲得による心臓の進化
○Yuuta Moriyama¹, Kazuko Koshiba-Takeuchi¹ (IMCB, Univ. of Tokyo¹, IMCB, Univ. of Tokyo²)
- P076**
(OP14-FT1) *cis*-regulatory elements and *trans*-acting factors regulating *Fgf10* expression in the presumptive limb field
予定肢芽領域における *Fgf10* 発現を制御する *cis* 制御エレメントと *trans* 因子
○Yo-ichi Yamamoto-Shiraishi, Ami Uemura, Yu-hei Kohara, Taishi Ueta, Atsushi Kuroiwa (Div. of Biol. Sci., Grad. Sch. of Sci., Nagoya Univ.)
- P077**
(OP14-FT2) A novel concept of organogenesis: an essential role of platelets in lung development
血小板と肺発生の関連から提唱される器官形成の新しいメカニズム
○Nagaharu Tsukiji¹, Osamu Inoue², Shogo Tamura¹, Toshiaki Shirai¹, Tomoyuki Sasaki¹, Kaneo Satoh¹, Katsue Suzuki-Inoue¹, Yukio Ozaki¹ (Department of Clinical and Laboratory Medicine, Faculty of Medicine, University of Yamanashi¹, Infection Control Office, University Of Yamanashi Hospital, Faculty of Medicine, University of Yamanashi²)

- P078** Multi-gene knockouts by the CRISPR/Cas9 system in mouse ES cells: an approach to phenotyping of embryonic lethal mutants in F0 embryos
 ◯Takaya Abe¹, Yui Yamashita^{1,2}, Yoshiko Mukumoto¹, Atsumi Denda¹, Mari Kaneko^{1,2}, Emi Watase¹, Hiroshi Kiyonari^{1,2}, Yasuhide Furuta^{1,2} (GET, RIKEN CLST¹, ARDU, RIKEN CLST²)
- P079** Inhibition of plastid translation alters expression of stem cell-regulatory genes in lateral roots of *Arabidopsis thaliana*
 シロイヌナズナの側根においてプラスチドの翻訳抑制が引き起こす幹細胞制御因子の遺伝子発現変化
 ◯Miyuki Nakata¹, Hirokazu Tsukaya², Gorou Horiguchi^{1,3} (Res. Cntr. Life Sci., Coll., Rikkyo Univ.¹, Grad. Sch. Sci., Univ. Tokyo², Dep. Life Sci., Coll. Sci., Rikkyo Univ.³)
- P080** Visualization of *Arabidopsis* lateral root organogenesis using 3D time-lapse imaging
 3次元タイムラプスイメージングによるシロイヌナズナの側根発生の解析
 ◯Tatsuaki Goh^{1,2}, Hidehiro Fukaki¹, Malcolm J. Bennett² (Grad. Sch. Sci., Kobe Univ.¹, CPIB, Univ. Nottingham²)
- P081** Functional study of GJB3 gene mutation in nonsyndromic deafness using cell model
 ◯Swee Hee Wong, Jiann Jou Yang, Shuan Yow Li (IM, CSMU)
- P082 (OP11-FT3)** Foxp4 is critical for acinar cell development in mouse pancreas
 ◯Chi Kin Chung¹, Wing Yip Tam¹, Wang Chi Lau¹, Chiu Yi Leung¹, Kin Ming Kwan^{1,2,3} (SLS, CUHK¹, RGC-AoE COBE, CUHK², PSKLA (CUHK)³)
- P083 (OP11-FT2)** Histone demethylase LSD1 is required for normal development of endodermal organs in zebrafish
 ◯Christina-Sylvia Andrea, Yuji Fuse, Makoto Kobayashi (Fac. Med., Univ. Tsukuba)
- P084 (OP14-FT3)** Real time imaging of Neuregulin 1 ectodomain-shedding in the developing zebrafish embryos
 ゼブラフィッシュ胚における増殖因子 Neuregulin 1 の切断の可視化
 ◯Aosa Kamezaki^{1,2}, Fuminori Sato¹, Kazuhiro Aoki³, Koichi Kawakami⁴, Shigetomo Fukuhara⁵, Naoki Mochizuki⁵, Atsuko Sehara-Fujisawa¹ (Department of Growth Regulation, IFMS, Kyoto University¹, Graduate School of Biostudies, Kyoto University², Laboratory of Bioimaging and Cell Signaling, Graduate School of Biostudies, Kyoto University³, Division of Molecular and Developmental Biology, NIG⁴, Department of Cell Biology, NCVC⁵)
- P085** Dynamics of Distribution of Tannin Cells during the Flower and Fruit Development of *Medinilla magnifica* Lindl (Melastomataceae)
 ◯Jan Lorie Robil¹, Vivian Tolentino² (AdMU¹, UPD²)
- P086** Morphological analysis of seminal receptacles of species in genus *Drosophila*
 ショウジョウバエ属の雌受精嚢の形態学的解析
 ◯Tatsuhiko Noguchi (NDMC, Biology)
- P087** Analysis of the mechanisms that promote the reprogramming in Akt-activated primordial germ cells
 Akt 活性化 PGC における再プログラム化促進メカニズムの解析
 ◯Asuka Takehara^{1,2}, Yuko Tokitake¹, Yasuhisa Matsui¹ (CRCBR, IDAC, Tohoku Univ.¹, Kyono ART Clinic, Sendai²)
- P088** An attempt of direct reprogramming of mouse embryonic fibroblasts into primordial germ cells
 マウス胎仔線維芽細胞から始原生殖細胞を直接誘導する試み
 ◯Tamotsu Sekinaka¹, Toshiaki Noce², Yasuhisa Matsui¹ (CRCBR, IDAC, Tohoku Univ.¹, School of

Med., Keio Univ.²)

P089

An RNAi screen for histone modifier genes involved in primordial germ cell fate determination in mice

マウス始原生殖細胞の運命決定に関わるヒストン修飾調節因子のRNAiスクリーニング

○Kentaro Mochizuki, Yasuhisa Matsui (CRCBR, IDAC, Tohoku Univ.)

P090
(OP15-FT1)

Screening and treatment of asthenozoospermia caused by a *GALNTL5* gene mutation

ヒト *GALNTL5* 遺伝子変異を原因とする精子無力症患者の同定と治療

○Nobuyoshi Takasaki¹, Jun Hagiuda^{1,2}, Hiromichi Ishikawa², Hisashi Narimatsu¹ (GTRC, AIST¹, Ichikawa General Hosp. Tokyo Dent. Colle.²)

P091
(OP15-FT2)

Identification, localization, and functional analysis of CABS1 protein in porcine testis

○Hossam H. Shawki^{1,2}, Akihiro Kawashima¹, Takumi Kigoshi¹, Satoru Takahashi², Naomichi Okamura¹ (Laboratory of Reproductive Biochemistry, Graduate School of Comprehensive Human Sciences, University of Tsukuba¹, Department of Anatomy and Embryology, Faculty of Medicine, University of Tsukuba²)

P092
(OP15-FT3)

Structural plasticity of the mature egg-coating envelope accompanied by the extrinsic control of fertilization success in *Xenopus laevis*

ダイカルシンと gp41 の相互作用を基盤とする受精率制御に伴う卵保護膜構造変化

○Naofumi Miwa, Mayu Hanaue, Ken Takamatsu (Toho Univ., Dept. Physiol.)

P093
(OP15-FT4)

Gain of function mutations in two paralogous Androgen receptor (AR) genes of teleosts : Implications for evolution of AR gene function

○Yukiko Ogino¹, Shigehiro Kuraku², Hiroshi Ishibashi³, Hitoshi Miyakawa¹, Shinichi Miyagawa¹, Gen Yamada⁴, Michael E. Baker⁵, Taisen Iguchi¹ (Div. Molecular Environmental Endocrinology, NIBB, Okazaki Institute for Integrative Bioscience, SOKENDAI¹, Phyloinformatics Unit, RIKEN CLST², Faculty of Agriculture, Ehime Univ.³, Dept. Developmental Genetics, Wakayama Medical Univ.⁴, Division of Nephrology-Hypertension, Univ. of California, San Diego⁵)

P094

Released and exposed proteins via calcium ionophore-induced sperm reaction in the ascidian *Ciona intestinalis*

カタユレイボヤ精子においてカルシウムイオノフォア誘導精子反応時に放出・露出される因子の探索

○Shiori Nakazawa, Kei Otsuka, Maki Shirae-Kurabayashi, Hitoshi Sawada (SMBL, Nagoya Univ.)

P095

Functional analysis of *NHP2*, a candidate gene downstream of *Sex lethal* in *Drosophila*

ショウジョウバエにおける *Sex lethal* 下流候補遺伝子 : *NHP2* の機能解析

○Shumpei Morita^{1,2}, Ryoma Ota², Satoru Kobayashi^{1,2} (SOKENDAI¹, Okazaki Institute for Integrative Bioscience, National Institute for Basic Biology, National Institutes of Natural Sciences²)

P096

5-Hydroxytryptophan acts as an ovary-inducing substance in asexual worms of the planarian *Dugesia ryukyuensis*

5-ハイドロキシトリプトファンはプラナリア無性個体において卵巣誘導因子として働く

○Nanna Nagao¹, Takanobu Maezawa², Hiroyuki Tanaka³, Kazuya Kobayashi¹ (Hirosaki University¹, Tsuyama National College of Technology², Shiga University of Medical Science³)

P097
(OP15-FT5)

Functional analyses of Nanos3 in mouse spermatogenesis

精子形成過程における Nanos3 の機能解析

○Takayuki Sakurai^{1,2}, Yumiko Saga^{1,2,3} (NIG¹, Department of Genetics, SOKENDAI², Department of

Biological Sciences, Graduate School of Science, University of Tokyo³)

- P098**
(OP15-FT6) Biogenesis of *Drosophila* stress granules and its interaction with P-bodies in female germline
○Chia-Ying Liu¹, Szu-Jing Huang², Ming-Der Lin^{1,2} (Dept. MBHG, Tzu Chi Univ. Taiwan¹, Dept. LS, Tzu Chi Univ. Taiwan²)
- P099**
(OP15-FT7) The oogenesis and transcriptome analysis of *Forcipomyia taiwana* (Diptera: Ceratopogonidae)
○Szu-Chieh Wang¹, Anna Shiny Radhakrishnan^{1,2}, Hsien-Min Lee³, Cheng-Nan Wu⁴, Chuen-Fu Lin⁵, Ming-Der Lin¹ (Dept MBHG, TCU, Taiwan¹, Dept GE, SRM, India², IBT, CTUST, Taiwan³, Dept MLSB, CTUST, Taiwan⁴, Dept VM, NCU, Taiwan⁵)
- P100** Foxp2 is required for morphological development of medium-sized spiny neurons in the mouse striatum
Yi-Chuan Chen, ○Fu-Chin Liu (INS, NYMU)
- P101** Effects of shRNA-mediated FoxP1 knockdown on the spinal motor neuron development in chick embryo
ニワトリ胚脊髄運動ニューロンの発生に対する FoxP1 ノックダウンの影響
○Katsuki Mukaigasa, Chie Sakuma, Hiroyuki Yaginuma (Fukushima Med. Univ.)
- P102** Semaphorin 5A is a permissive and attractive guidance cue for dorsal root ganglion axons in higher vertebrate embryos
セマフォリン 5A は脊髄神経節ニューロンの軸索に対して許容性のガイド因子である
○Tomoyuki Masuda¹, Chie Sakuma², Shuichi Ueda³, Takashi Shiga¹, Hiroyuki Yaginuma², Masahiko Taniguchi⁴ (Dept Neurobiol, Fac Med, Univ of Tsukuba, Ibaraki, Japan¹, Dept Neuroanat Embryol, Fukushima Med Univ Sch Med, Fukushima, Japan², Dept Histol Neurobiol, Dokkyo Med Univ Sch Med, Tochigi, Japan³, Dept Cell Sci, Res Inst Front Med, Sapporo Med Univ, Hokkaido, Japan⁴)
- P103**
(OP09-FT1) Investigating mechanisms underlying lens differentiation from embryonic neural retina
ニワトリ胚神経性網膜から水晶体への分化遷移の機構
○Hideaki Iida¹, Yasuo Ishii², Hisato Kondoh² (DBGSE, Kyoto Sangyo Univ.¹, DMBFLS, Kyoto Sangyo Univ.²)
- P104**
(OP21-FT1) Functional interaction between Latrophilin-2 and Teneurin-2/4 in the migration of neural crest cells
Latrophilin-2 と Teneurin-2/4 の神経堤細胞遊走における機能的相互作用
○Kousuke Tanegashima¹, Natsumi Yokote^{1,2}, Marianna Suzuki^{1,2}, Tatsuo Michiue³, Takahiko Hara^{1,2} (Stem Cell Project, Tokyo Metropol. Inst. Med. Sci.¹, Grad. Sch. of Tokyo Med. Dent Univ.², Dep. of Life Sci., Grad. Sch. of Arts and Sci., Univ. of Tokyo³)
- P105** Integrity of basement membrane is important for axogenesis of cerebellar granule cells
基底膜の安定性は小脳顆粒細胞の軸索形成に重要である
○Miki Takeuchi¹, Shingo Yamaguchi², Takuto Hayashi², Shigenobu Yonemura³, Yuichiro Hara³, Tetsutaro Hayashi³, Shigehiro Kuraku³, Takashi Shimizu^{1,2}, Masahiko Hibi^{1,2} (BBC, Nagoya Univ.¹, Grad. Sch. Sci., Nagoya Univ.², RIKEN CLST³)
- P106** Identification and developmental fates of *Pax2/5/8*-expressing cells in *Ciona intestinalis*
カタユレイボヤにおける *Pax2/5/8* 発現細胞の同定と発生運命
○Yuichi Hasegawa¹, Kotaro Shimai¹, Megumi Mukai¹, Yutaka Daido¹, Koki Nishitsuji², Takehiro Kusakabe¹ (Inst. Integr. Neurobiol., Grad. Sch. Nat. Sci., Konan Univ.¹, OIST²)

- P107** The role of FGFs and Shh signaling in the craniofacial development of Amur catfish, *Silurus asotus*
ナマズの頭部形態形成における FGFs 及び Shh シグナルの役割
○Tatsuya Itoyama, Yasuhiko Tosa, Torao Kawanaka, Yasunori Murakami (Ehime Univ)
- P108** Intermingled migration of the CA3 pyramidal and dentate granule progenitors in the developing hippocampal formation
Taku Sugiyama², Noriko Osumi¹, ○Yu Katsuyama¹ (Tohoku Univ. Grad. Sch. Med.¹, RIKEN BSI²)
- P109** Analysis of Mab21 expression in the mouse fore- & midbrain and the Mab2112 requirement during its development
○Yanjiang Guo, King Lau Chow (LIFS, HKUST)
- P110 (OP09-FT2)** *Mab2112* is required for development of the preBötC neurons involved in respiratory rhythmogenesis
○Chung Man Chan, King Lau Chow (LIFS, HKUST)
- P111** Expression patterns and functional characterization of zebrafish di-ras1a and di-ras1b
○Li-Sung Hsu, Chi-Wei Yeh (IBB, CSMU)
- P112 (OP21-FT2)** Hydra peduncle nervous system has primitive functions of the brain
ヒドラ柄部の神経系は原始的な脳機能をもっている
○Hiroshi Shimizu¹, Xiaoming Zhang², Takashi Gojobori¹ (KAUST¹, KUMC²)
- P113 (OP18-FT1)** ゼブラフィッシュ小脳顆粒細胞の分化における Cfdp1 の役割
A nuclear protein Cfdp1 regulates differentiation of granule cells in zebrafish cerebellum
○Takashi Shimizu¹, Shuichi Kani², Young-Ki Bae^{2,3}, Xiaoding Sun¹, Hibi Masahiko¹ (BBC, Nagoya Univ.¹, CDB, RIKEN², NCC, Korea³)
- P114** Scarp and build of glial assemblies in the *Drosophila* brains
ショウジョウバエ脳におけるグリア組織網の再編成
○Kentarō Kato, Masami Tomura, Takeshi Awasaki (Sch. Med., Kyorin Univ.)
- P115** A missing link in the evolution of sensory architecture in craniates
脊椎動物体幹部感覚神経進化を理解する鍵
○Hiroshi Yajima¹, Shigeru Sato¹, Toshinori Hayashi², Takashi Takeuchi², Kiyoshi Kawakami¹ (Div of Biol, CMM, Jichi Med Univ¹, School of Life Science, Tottori Univ²)
- P116** Live imaging of midline crossing and longitudinal tract formation of commissural axons in developing chick spinal cord
ニワトリ胚脊髄の交連神経軸索の正中横断と縦束神経路形成のライブイメージング
○Yuji Watanabe¹, Lingling Ding², Chie Sakuma¹, Hiroyuki Yaginuma¹ (Dept. Neuroanat. & Embryol., Sch. Med., Fukushima Medical Univ.¹, Dept. Anat., Sch. Basic Med. Sci., Wuhan Univ.²)
- P117** Nobel roles of Fgf8 which is expressed in ventral region of the developing chick hind-brain
発生期後脳において腹側に発現する Fgf8 は背腹軸パターン形成に作用する
○Jun Hatakeyama, Kenji Shimamura (IMEG, Kumamoto Univ.)
- P118** Formation of neuronal circuits by interactions between neuronal populations derived from different origins in the *Drosophila* visual center
由来の異なる細胞同士の相互作用による神経回路の形成機構
○Takumi Suzuki¹, Masako Kaido¹, Rie Takayama¹, Makoto Sato^{1,2} (FSO Kanazawa Univ¹, CREST, JST²)

- P119** Over expression of ER-localized Bcl2 suppresses BNip1-dependent apoptosis
 小胞体局在型 Bcl2 の過剰発現は BNip1 が誘導する細胞死を抑制する
 °Yuko Nishiwaki, Eri Oguri, Masato Araragi, Shohei Nakamura, Asuka Yoshizawa, Ichiro Masai (OIST)
- P120 (OP18-FT2)** GAD in the AER
 外胚様性堤防のグルタミン酸脱炭酸酵素
 Nozomi Onodera², Hiroshi Nakata¹, °Satomi Sasaki¹, Isato Araki² (DCBFE, Iwate Univ.¹, UGAS, Iwate Univ.²)
- P121 (OP12-FT2)** Species-specific repertoires of promoter-associated non-coding RNAs may contribute to the diversification of gene expression profile
 長鎖ノンコーディング RNA を介した遺伝子発現制御の生物種間多様性
 °Masahiro Uesaka^{1,2,3}, Kinichi Nakashima², Kiyokazu Agata¹, Takuya Imamura² (Grad. Sch. of Sci., Kyoto Univ.¹, Grad. Sch. of Med. Sci., Kyushu Univ.², Grad. Sch. of Sci., Univ. of Tokyo³)
- P122** A role of the two protein tyrosine phosphatases, Lar and Ptp69D, in the photoreceptor axon targeting
 2 種のチロシン脱リン酸化酵素 Lar と Ptp69D の視神経の軸索投射における役割
 °Satoko Hakeda-Suzuki, Takashi Suzuki (Tokyo Inst. Tech., Grad. Sch. of Biosci. & Biotech.)
- P123 (OP12-FT1)** Synaptic specificity and loci determination in the *Drosophila* photoreceptor
 ショウジョウバエの視神経を用いた中枢神経シナプスの分布・可塑性制御機構の解析
 °Fumio Takahashi¹, Atsushi Sugie², Satoko Hakeda-Suzuki¹, Takashi Suzuki¹ (TITech¹, DZNE, Bonn, Germany²)
- P124** Search for the genes required for synaptic plasticity in the *Drosophila* visual system
 ショウジョウバエの視神経系におけるシナプスの可塑性を制御する遺伝子の同定
 °Tomohiro Araki¹, Mai Shimosono¹, Atsushi Sugie², Satoko Hakeda-Suzuki¹, Takashi Suzuki¹ (Graduate School of Bioscience and Biotechnology, Tokyo Tech, Yokohama, Japan¹, DZNE, Bonn, Germany²)
- P125** An RNAi screen for the genes required for synaptic specificity in the *Drosophila* visual system
 ショウジョウバエ視神経系を用いたシナプス形成を制御する遺伝子の探索
 °Mai Shimosono¹, Tomohiro Araki¹, Atsushi Sugie², Satoko Hakeda-Suzuki¹, Takashi Suzuki¹ (Graduate school of Bioscience and Biotechnology, Tokyo Institute of Technology¹, DZNE, Bonn Germany²)
- P126** Dorso-Ventral Patterning of the Lamprey Telencephalon by *Foxg1*, Evolution of the Vertebrate Telencephalon
 ヤツメウナギ終脳形成における *Foxg1* を介した DV パターニング機構と脊椎動物終脳の進化
 °Fumiaki Sugahara^{1,2}, Shin-ichi Aota², Yasunori Murakami³, Noboru Sato⁴, Shigeru Kuratani² (Div. Biol., Hyogo Coll. Med.¹, Evol. Morph., RIKEN², Grad. Sch. Sci. Eng., Ehime Univ.³, Grad. Sch. Med. Dent., Niigata Univ.⁴)
- P127** The Developmental Distribution of Neuronal Intermediate Filament in *ana* and *inab* in the Zebrafish Retina
 °Meng-Lin Liao, Daphne Wei-Chun Kan, Chung-Liang Chien (DACB, NTU)
- P128 (OP05-FT3)** Gene expression analysis of apical epidermal cap during tail regeneration in *Xenopus* tadpole

アフリカツメガエル幼生尾部再生時に形成される apical epidermal cap における
遺伝子発現解析

○Akinori Okumura, Yoshihiko Umesono, Makoto Mochii (Grad Sch of Life Sci, Univ of Hyogo)

P129 Identification and characterization of regeneration signal response enhancers in *Xenopus* pronephros

Nanoka Suzuki¹, Koudai Hirano¹, Hajime Ogino², ○Haruki Ochi¹ (Yamagata Univ., Fac. of Med.¹, Department of Animal Bioscience, Nagahama Institute of Bio-Science and Technology²)

P130 Fundamental mechanisms for multiple organ regeneration in urodele amphibians

有尾両生類における様々な器官再生を制御する基本的メカニズム

○Aki Makanae, Kazumasa Mitogawa, Akira Satoh (RCIS, Okayama Univ.)

P131 (OP02-FT2) Differential roles for the H3K27 methylase and demethylases in *Xenopus* tail regeneration

ツメガエルの尾部再生における H3K27 メチル化因子と脱メチル化因子の異なる役割

○Akane Kawaguchi, Hajime Ogino (n-bio)

P132 Comparative histological analysis of tectum regeneration in *Xenopus laevis* and Newts, *Pleurodeles waltl*

視蓋再生におけるカエルとイモリの再生様式の比較解析

○Yuko Urata¹, Wataru Yamashita^{1,2}, Takeshi Inoue¹, Kiyokazu Agata¹ (Dept. of Biophys., Grad. Sch. of Sci., Kyoto Univ.¹, Dept. of Biology, Kyoto Pref. Univ. Med.²)

P133 Periportal hepatocytes may give rise to biliary epithelial cells during liver regeneration after partial hepatectomy of mouse

部分肝切除後の肝再生において門脈域肝細胞は胆管上皮細胞を生じるかもしれない

○Tatsuya Fukuda, Tomokazu Fukuchi, Nobuyoshi Shiojiri (DBS, Shizuoka Univ.)

P134 Attempt to obtain new insight into PIWI function in planarians

PIWI タンパク質のリボソーム RNA 合成への関与の検討

Miyako Hikichi¹, Makoto Kashima¹, Kuniaki Saito², Haruhiko Siomi², Mikiko Siomi³, Kiyokazu Agata¹, ○Norito Shibata¹ (Dept. of Biophys, Kyoto Univ.¹, Dept. of Mol. Biol, Keio Univ.², Grad. Sch. of Sci., Univ. of Tokyo³)

P135 Dedifferentiation of HBx- and HCP-expressed hepatocytes are essential for intrahepatic cholangiocarcinoma formation in zebrafish

Sung-Yu Wu, Wangta Liu, ○Jen-Leih Wu (ICOB, Academia Sinica, Taiwan)

P136 (OP02-FT3) Gene expression profile of pluripotent stem cells activated for differentiation during regeneration in planarian

○Hayoung Lee¹, Kiyokazu Agata¹, Norito Shibata² (Dept. of Biophysics, Grad. School of Science, Kyoto Univ.¹, Regenerative Biology, Grad. School of Science, Kyoto Univ.²)

P137 Progranulin is Required for Liver Regeneration in the Partial Hepatectomized Zebrafish

○Keng-Yu Chiang^{1,2}, Ya-Wen Li¹, Yen-Hsing Li¹, Jen-Leih Wu¹ (ICOB, Academia Sinica¹, Department of Life Science, National Taiwan University, Taiwan²)

P138 Chronic inflammation induces the blastema apoptosis during zebrafish fin fold regeneration

ゼブラフィッシュの膜ヒレ再生において、過剰な炎症反応が再生芽のアポトーシスを誘導する

○Tomoya Hasegawa, Akira Kudo, Atsushi Kawakami (Tokyo tech)

- P139** Gene expression at the dorso-ventral boundary of wound epidermis in newt limb regeneration
イモリの四肢再生過程で形成される傷上皮背腹接触域における遺伝子発現
Ayako Takai¹, Miyuki Wakabayashi¹, Rinako Suetsugu¹, Ikuyo Takemura³, Atsushi Ogura³,
○Nobuyasu Maki^{1,2} (IPR, Osaka Univ.¹, PRESTO, JST², NIBT³)
- P140** Post-metamorphic ectopic pigmentation at the ocular side skin in flatfish
ヒラメ・カレイにおいて変態後に起こる無眼側の異所的な色素形成
○Tohru Suzuki¹, Minoru Kunimasa¹, Xiaoming Wu¹, Mai Togawa¹, Susumu Uji², Hayato Yokoi¹ (Grad. Sch. of Agric. Sci., Tohoku Univ.¹, Nat.l Res. Inst. Aquacult.²)
- P141 (OP20-FT2)** Prenatal regression of the trophotaenial placenta in a viviparous fish, *Xenotoca eiseni*
グーデア科胎生魚ハイランドカープの栄養リボンは出生前に細胞死により退縮する
○Atsuo Iida¹, Toshiyuki Nishimaki², Atsuko Sehara-Fujisawa¹ (Ins. for Front. Med. Sci., Kyoto Univ.¹, Kitasato Univ. Sch. of Med.²)
- P142** Anatomical characterization of novel neurons projecting to the steroid hormone biosynthesis organ in *Drosophila*
ショウジョウバエのステロイドホルモン生合成器官に投射する新規神経細胞の解剖学的同定
○Eisuke Imura¹, Yuko Shimada², Ryusuke Niwa^{2,3} (Graduate School of Life and Environmental Sciences, University of Tsukuba, Japan¹, Faculty of Life and Environmental Sciences, University of Tsukuba, Japan², PRESTO, JST, Japan³)
- P143** Transcriptome analysis of asymmetric pigmentation in the flounder metamorphosis
ヒラメ変態期の左右非対称な色素胞分化のトランスクリプトーム解析
○Hayato Yokoi, Minoru Kunimasa, Xiaoming Wu, Yoshifumi Sakai, Tohru Suzuki (Grad Schl Agricul Sci, Tohoku Univ)
- P144 (OP20-FT3)** Understanding the mechanisms of dimorphic leaf development of aquatic plants
水草の二面的な葉形態形成メカニズムの解明
○Hiroyuki Koga, Hirokazu Tsukaya (Univ. Tokyo)
- P145** Flies without Trehalose and glycogen
ショウジョウバエにおける貯蔵糖の生理的役割
Takayuki Yamada, ○Takashi Nishimura (RIKEN CDB)
- P146 (OP17-FT1)** Inhibiting autophagy enhanced anticancer efficacy of recombinant human arginase in melanoma cells
○Ziyu Wang, Dianwen Ju (SP, Fudan Univ)
- P147 (OP17-FT2)** Targeting hedgehog signaling pathway and autophagy overcomes drug-resistance of BCR-ABL positive chronic myeloid leukemia
○Li Yubin, Zeng Xian, Fan Jiajun, Wang Ziyu, Wang Shaofei, Song Ping, Ju Dianwen (DBSP, Fudan Univ.)
- P148** Dissecting the mechanism of Hippo-mediated developmental robustness in *Drosophila*
Hippo 経路を介した発生ロバストネス制御機構の遺伝学的解析
○Yayoi Wada¹, Shizue Ohsawa¹, Tatsushi Igaki^{1,2} (Lab. of Genteics, Grad. Sch. of Biostudies, Kyoto Univ.¹, PRESTO, JST²)
- P149 (OP17-FT3)** Role of Autophagy in Quantum Dots-induced Nanotoxicity
○Jiajun Fan, Sun Yun, Wang Shaofei, Ju Dianwen (DOB FDU)

P150

Zebrafish liver specific expression of desaturases and elongase result in suppression of *Vibrio vulnificus* infection

○Chih-Lun Cheng¹ (ICOB, Academia Sinica¹, Chih-Lun, Cheng²)