

Scientific Program

30 oral presentations

53 poster presentations

September 8th, 2011

12:45-12:50 Opening remark

12:50-14:20 Oral presentation 1-6

Chair: Motoyuki Ito (Nagoya University)

Chair: Wataru Shoji (Tohoku University)

Oral-1 12:50-13:05

Heterogeneities in p0 progenitors and the temporal regulation of cell differentiation contribute to the generation of neuronal diversity in spinal V0 neurons

○Chie Satou, Yukiko Kimura, Shin-ichi Higashijima

OKAZAKI INSTITUTE FOR INTEGRATIVE BIOSCIENCE

Oral-2 13:05-13:20

ErbB2/ErbB3 signaling is required for DRG neuron formation

○Yasuko Honjo¹, Akira Satoh¹ and Judith Eisen²

¹ Research Core for Interdisciplinary Science, Okayama University, ² Institute of Neuroscience, University of Oregon

Oral-3 13:20-13:35

A novel protein, Sidetrk1 supports peripheral axon extension in zebrafish primary sensory neurons by facilitating ligand-independent activation of neurotrophin receptors

○Makoto Aoki, Hiroshi Segawa, Mayumi Naito, Hitoshi Okamoto

Lab. for Developmental Gene Regulation, BSI, RIKEN

Oral-4 13:35-13:50

The Role of Sdf1/Cxcr4 Chemokine Signaling in Neurovascular Niche within the Adult Zebrafish Telencephalic Ventricular Zone

○Hideto Nagai¹, Norihito Kishimoto^{1,2}, Kohei Shimizu¹, Kazuhide Asawakawa³, Akihiro Urasaki³, Holger Knaut⁴, Shigenori Nonaka⁵, Koichi Kawakami³, and Kazunobu Sawamoto¹

¹ Nagoya City University, ²Keio University, ³ National Institute of Genetics, and SOKENDAI, ⁴ NYU School of Medicine, ⁵ National Institute for Basic Biology

Oral-5 13:50-14:05

Dickkopf controls neuromast size during lateral line development

○Hironori Wada¹ and Koichi Kawakami²

¹ PRESTO, JST, ² National Institute of Genetics; SOKENDAI

Oral-6 14:05-14:20

Visualization of cell cycle and cell division in lens using mCherry-Geminin/H2A-GFP transgenic zebrafish

○Toshiaki Mochizuki¹, Shohei Suzuki¹, Asako Sakaue-Sawano², Atsushi Miyawaki², and Ichiro Masai¹

¹ Developmental Neurobiology unit, Okinawa Institute of Science and Technology, ² RIKEN BSI

14:20-14:35 Coffee Break

14:35-16:05 Oral presentation 7-13

Chair: Shinji Takada (National Institute of Basic Biology)

Chair: Tohru Ishitani (Kyushu University)

Oral-7 14:35-14:50

The DEAD-box protein Ddx46 is involved in pre-mRNA splicing for development of digestive organs and brain in zebrafish

○Shunya Hozumi¹, Ryo Hirabayashi¹, Akio Yoshizawa^{1,2}, Mitsuko Ogata², Tohru Ishitani², Makiko Tsutsumi², Atsushi Kuroiwa², Motoyuki Itoh², Yutaka Kikuchi^{1*}

¹ Department of Biological Science, Graduate School of Science, Hiroshima University,

² Division of Biological Science, Graduate School of Science, Nagoya University

Oral-8 14:50-15:05

***Eda* mutants reveal that *ectodysplasin* and its receptor *edar* signaling pathway are required for fin ray formation in medaka**

○Yuuki Iida, Kenta Hibiya, Keiji Inohaya, Akira Kudo

Department of Biological Information, Tokyo Institute of Technology

Oral-9 15:05-15:20

Cugbp1 regulation of *dmrt2a* is required to generate proper somite symmetry and left-right patterning during zebrafish development

○Takaaki Matsui¹, Akihiro Sasaki¹, Naoko Akazawa¹, Hifumi Otani² and Yasumasa Bessho¹

¹ Graduate School of Biological Sciences, Nara Institute of Science and Technology,

² Cooperative Research Division, Nara Institute of Science and Technology

Oral-10 15:20-15:35

Integration of segmentation clock and FGF signaling generates segmental pattern of somite

○Ryutaro Akiyama, Takaaki Matsui, Miwa Masuda, Yasumasa Bessho
Graduate School of Biological Sciences, NAIST

Oral-11 15:35-15:45 (short talk)

Transient Zebrafish *Danio rerio* Express Human Viral Oncogenic v-myc Transcription Factor Derived from Breast Adenocarcinoma (MCF-7) Cell Line: Vector Construction and In vitro Transcription

○Tamer Said, Tae-Hyoun Kim, So-Na Jang, and Jae-Hak Park
Department Laboratory Animal Medicine, College of Veterinary Medicine, Seoul National University

Oral-12 15:45-15:55 (short talk)

In vivo imaging of osteoclasts and osteoblasts in medaka fracture healing

○Kazuhiro Takeyama, Masahiro Chatani, Akira Kudo
Department of Biological Information, Tokyo Institute of Technology

Oral-13 15:55-16:05 (short talk)

Analysis of autonomic nervous activities from the movement of internal organs by high-speed movies using medaka

○Tomomi Watanabe-Asaka¹, Maki Niihori¹, Shoji Oda^{1,2}, Ken-ichi Iwasaki^{1,3}, Shuji Terai⁴, Hiroshi Mitani² and Chiaki Mukai¹

¹ Japan Aerospace Exploration Agency, ² Nihon University School of Medicine, ³ The University of Tokyo, ⁴ Yamaguchi University

16:05-16:20 Coffee Break

16:20-17:10 Keynote lecture

Chair: Koichi Kawakami (National Institute of Genetics)

Title: A fascinating world of somitogenesis

Speaker: Professor Yumiko Saga

Mammalian Development Laboratory, National Institute of Genetics

17:10-19:10 Poster presentation

17:10-18:10 Odd number posters

18:10-19:10 Even number posters

19:10-20:45 Mixer

September 9th, 2011

9:00-10:35 Oral presentation 14-20

Chair: Yasuko Honjo (Okayama University)

Chair: Toshiaki Mochizuki (Okinawa Institute of Science and Technology)

Oral-14 9:00-9:15

Analysis of the molecular and neural mechanism of female sexual preference that depends on visual information in small fish medaka

○Teruhiro Okuyama¹, Hideki Abe¹, Yuji Suehiro¹, Haruka Imada¹, Atsuko Shimada¹, Takashi Kawasaki⁴, Shunsuke Yuba⁴, Yoshihito Taniguchi³, Yasuhiro Kamei², Minoru Tanaka², Kiyoshi Naruse², Hiroyuki Takeda¹, Yoshitaka Oka¹, Takeo Kubo¹, Hideaki Takeuchi¹

¹ Dept. of Biol. Scis., Grad. Sch. of Sci., Univ. of Tokyo, ² Natl. Inst. Basic Biol., ³ Sch. of Medicine, Keio Univ., ⁴ AIST

Oral-15 9:15-9:30

Searching for genes affecting visually-evoked startle response properties in Medaka

○Satomi Tsuboko¹, Tetsuaki Kimura², Yuji Suehiro³, Teruhiro Okuyama², Atsuko Shimada¹, Hiroyuki Takeda¹, Kiyoshi Naruse², Takeo Kubo¹, Hideaki Takeuchi¹

¹ Graduate School of Science, The University of Tokyo, ² Laboratory of Bioresources, National Institute for Basic Biology, ³ Tokyo Women's Medical University

Oral-16 9:30-9:45

Molecular basis for developmental acquisition of unique firing property of Mauthner cell in zebrafish

○Takaki Watanabe, Takashi Shimazaki, Takako Suzuki, Hiromi Hirata, Masashi Tanimoto, and Yoichi Oda

Graduate School of Science, Nagoya University

Oral-17 9:45-10:00

Brain Imaging with New GCaMPs

○Akira Muto, Koichi Kawakami

Division of Molecular and Developmental Biology, National Institute of Genetics

Oral-18 10:00-10:15

Genetic dissection of the adult zebrafish brain by the GAL4-UAS system

○Pradeep Lal^{1,2}, Koichi Kawakami^{1,2}

¹ Department of Genetics, Graduate University for Advanced Studies (SOKENDAI),

² National Institute of Genetics

Oral-19 10:15-10:25 (short talk)

Functional analysis of the habenulo-raphe pathway using genetic manipulation

○Ryunosuke Amo^{1,2}, Masakazu Agetsuma¹, Masae Kinoshita¹, Toshiyuki Shiraki¹, Shin-ichi Higashijima³, Masaru Matsuda⁴, Maximiliano L Suster⁵, Koichi Kawakami⁵, Toshio Ohshima², Hidenori Aizawa¹, and Hitoshi Okamoto^{1,2}

¹ RIKEN BSI, ² Waseda University, ³ NIPS, Okazaki Institute for Integrative Bioscience,

⁴ Utsunomiya University, ⁵ National Institute of Genetics

Oral-20 10:25-10:35 (short talk)

Molecular cloning of *period2* from flounder, and analysis of its expression sites in the larval brain and dairy rhythm

○Nanako Watanabe, Hayato Yokoi, Tohru Suzuki

東北大学大学院農学研究科 海洋生命遺伝情報システム学

10:35-10:45 Coffee Break

10:45-11:35 Oral presentation 21-24

Chair: Hiroshi Mitani (The University of Tokyo)

Chair: Hayato Yokoi (Tohoku University)

Oral-21 10:45-11:00

Scale- and tooth phenotypes in medaka with mutated ectodysplasin-A receptor: implication in evolutionary origin of oral- and pharyngeal teeth

A.D.S. Atukorala^{1,2}, Keiji Inohaya³, Otto Baba¹, Makoto. J. Tabata¹, R.A.R.K Ratnayake¹, Dawud Abduweli¹, Shohei Kasugai^{2,4}, Hiroshi Mitani⁵, and ○Yoshiro Takano¹

¹ Section of Biostructural Science, Graduate School of Tokyo Medical and Dental University, ² International Research Center for Molecular Science in Tooth and Bone Diseases, Global COE, Tokyo Medical and Dental University, ³ Tokyo Institute of Technology, ⁴ Graduate School of Tokyo Medical and Dental University, ⁵ University of Tokyo

Oral-22 11:00-11:15

Teratogenicity caused by anti-cancer drug, doxorubicin

○Taniguchi Y, Yoshioka N, Kabe Y, Kosaki K

Keio University, School of Medicine, Tokyo.

Oral-23 11:15-11:25 (short talk)

Expression and function of muscle-specific microRNAs in medaka

○Saori Tani¹, Rie Kusakabe¹, Kiyoshi Naruse², Hiroshi Sakamoto¹, Kunio Inoue¹

¹ Department of Biology, Graduate School of Science, Kobe University, ² NIBB

Oral-24 11:25-11:35 (short talk)

A single basepair difference is sufficient to distinguish males from females in medaka fish

○ Haruo Masuyama^{1,2}, Masato Yamada², Yasuhiro Kamei³, Tomoko Ishikawa⁴, Takeshi Todo⁴, Yoshitaka Nagahama⁵, Masaru Matsuda²

¹ Tokyo University of Agriculture and Technology, ² Utsunomiya University, ³ National Institute for Basic Biology, ⁴ Osaka University, ⁵ Ehime University

11:35-12:10 Community meeting

Chair: Masahiko Hibi (Nagoya University)

12:10-13:00 Lunch

13:00-14:30 Oral presentation 25-30

Chair: Atsuo Kawahara (Riken Quantitative Biology Center)

Chair: Akinori Kawamura (Saitama University)

Oral-25 13:00-13:15

Autotaxin Affects Cardiogenesis via LPA Receptor 3 by Mediating Left-Right Asymmetry

○ Shih-Lei Lai¹, Ku-Chi Tsao¹, Wang-Ling Yao¹, Anna J.S. Houben², Harald M. H. G. Albers², Huib Ovaa², Wouter H. Moolenaar² and Shyh-Jye Lee^{1,3,4,5}

¹ Institute of Zoology, ³ Department of Life Science, ⁴ Center for Biotechnology, ⁵ Research Center for Developmental Biology and Regenerative Medicine, ² Division of Cell Biology, The Netherlands Cancer Institute

Oral-26 13:15-13:30

A novel erythroblast-mediated angiogenic regulation in zebrafish

○ Atsuo Iida, Kazuya Sakaguchi, Anna Tomosawa, *Atsuo Kawahara, Atsuko Sehara-Fujisawa

Institute for Frontier Medical Sciences, Kyoto University, * National Cerebral and Cardiovascular Center Hospital

Oral-27 13:30-13:45

In vitro analysis demonstrated that the differences in interactions between pigment cells lead to the various surface patterns of zebrafish.

○ Hiroaki Yamanaka, Yuji Amihama, Shigeru Kondo

Graduate School of Frontier Biosciences, Osaka University

Oral-28 13:45-14:00

Xanthophores help Melanophores' survival by Notch-Delta signaling.

○Hiroki Hamada, Masakatsu Watanabe, Shigeru Kondo

FBS Osaka University

Oral-29 14:00-14:15

Identification of Regulatory Region for Region for Differential Expression of Duplicated Red Sensitive Opsin Genes in Zebrafish

○Ryuichi Ashino¹, Taro Tsujimura^{1,2}, Tomohiro Hosoya¹, Shoji Kawamura¹

¹ Department of Integrated Biosciences, Graduate School of Frontier Sciences, University of Tokyo ²Developmental Biology Unit, EMBL

Oral-30 14:15-14:30

Cyclostome Lampreys as a Developmental Model

○Rie Kusakabe¹

¹Department of Biology, Graduate School of Science, Kobe University

14:30-14:35 Closing remark

14:45-16:30 NIG tour

Poster presentation

Poster-1

High throughput screening of induced mutations in Medaka TILLING library

○Tomoko Fujiwara-Ishikawa, Takeshi Todo

Department of Radiation Biology and Medical Genetics, Graduate School of Medicine, Osaka University

Poster-2

TILLING screening for medaka mutants supported by NBRP medaka

○Hisashi Hashimoto (Medaka bioresource improvement voluntary committee)

Medaka bioresource improvement voluntary committee: Shuichi Asakawa, Shouji Oda, Yasuhiro Kamei, Takeshi Kitano, Masato Kinoshita, Atsushi Shimizu, Minori Shinya, Hideaki Takeuchi, Yoshihito Taniguchi, Tomonori Deguchi, Yasuhiro Tonoyama, Kiyoshi Naruse, Hisashi Hashimoto, Yasutoshi Yoshiura

Poster-3

Roles of a SoxD gene *sox5* and its genetic interaction with SoxE genes in pigment cell development

○Yusuke Nagao¹, Tomoko Adachi^{2, 3}, Atsushi Shimizu⁴, Ryoko Seki², Chikako Inoue², Yasuhiro Kamei⁵, Ikuyo Hara⁶, Yoshihito Taniguchi⁷, Kiyoshi Naruse⁶, Robert N. Kelsh³, Yuko Wakamatsu², Masahiko Hibi², Hisashi Hashimoto²

¹ Graduate School of Science and ² Bioscience and Biotechnology Center, Nagoya University, ³ University of Bath, ⁴ Department of Molecular Biology, School of Medicine, Keio University, ⁵ Spectrography and Bioimaging Facility, ⁶ National Institute for Basic Biology, ⁷ Keio University

Poster-4

Development of Tol2 transposon mediated gene trap method in zebrafish using MAZ transcription termination site

○Gembu Abe¹, Kazuhide Asakawa^{1,2}, Aki Ito¹, Ryuichi Fukuda¹, Akira Muto¹, Pradeep Lal^{1,2}, Hironori Wada³, Koichi Kawakami¹

¹National Institute of Genetics, Division of Molecular and Developmental Biology,

² SOKENDAI, ³PRESTO, Japan Science and Technology Agency

Poster-5

zTrap and NIGKOF: the databases for gene trap/enhancer trap lines and gene-knockout fish lines

○Koichi Kawakami^{1,2}, Gembu Abe¹, Kazuhide Asakawa^{1,2}, Ryuichi Fukuda¹, Pradeep Lal¹, Akira Muto¹, Hironori Wada¹

¹ Division of Molecular and Developmental Biology, National Institute of Genetics,

² Department of Genetics, Graduate University for Advanced Studies

Poster-6

Isolation of monoclonal antibodies that recognize zebrafish proteins in their native forms.

○Susumu Hamada-Tsutsumi, Yoshikazu Kurosawa

Division of Antibody Project, Institute for Comprehensive Medical Science, Fujita Health University

Poster-7

Automated Analysis and Sorting of Zebrafish Embryos and Larvae

○Weon Bae

Union Biometrica, Holliston, USA

Poster-8

A case report on cleanup of an intestinal parasitic worm in our zebrafish facility.

○Hideko Utsumi, Taijiro Yabe, Kayoko Takashiro, Qihong Chen, Hiroyuki Tsunokuni, Chimwar Wanglar and Shinji Takada

Division of Molecular and Developmental Biology, Okazaki Institute for Integrative Bioscience, National Institutes of Natural Sciences

Poster-9

Analysis of ERAD mechanism by using transgenic and knockout Medaka

○Taiki Hara¹, Tokiro Ishikawa¹, Testuya Okada¹, Tomoko Ishikawa², Takeshi Todo², Kazutoshi Mori¹

¹Department of Biophysics, Graduate School of Science, Kyoto University, ²Department of Radiation biology and Medical Genetics, Graduate School of Medicine, Osaka University

Poster-10

Establishment of transgenic Medaka lines expressing fluorescent proteins localized in specific organelles

○Yuto Kanda, Tokiro Ishikawa, Tetsuya Okada, Kazutoshi Mori

Department of Biophysics, Graduate School of Science, Kyoto University

Poster-11

ATF6 is essential for induction of ER chaperones required for early development

○Tokiro Ishikawa¹, Tetsuya Okada^{1,5}, Yoshihito Taniguchi⁴, Tomoko Ishikawa³, Takeshi Todo³, Shun-ichi Takeda^{2,5}, Kazutoshi Mori^{1,5}

¹ Graduate School of Science, Kyoto University, ² Graduate School of Medicine, Kyoto University, ³ Graduate School of Medicine, Osaka University, ⁴ School of Medicine, Keio University, ⁵ CREST

Poster-12

Knockdown of Stathmin4/RB3 impairs early neuron development in zebrafish

○Meng-Ju Lin¹ and Shyh-Jye Lee^{1,2,3,4},

¹ Institute of Zoology, ² Department of Life Science, ³ Center for Biotechnology, ⁴ Research Center for Developmental Biology and Regenerative Medicine

Poster-13

Microtubule-Dependent Dorsal Determination in Zebrafish

○Hiromu Hino¹, Ryoko Seki², Takashi Shimizu^{1,2}, and Masahiko Hibi^{1,2}

¹ Division of Biological Science, Graduate School of Science, and ² Bioscience and Biotechnology Center, Nagoya University

Poster-14

GHR signaling is required for proper dorsoventral patterning of zebrafish embryos

○A. S. Ishtiaq Ahmed, Li-Qun Yu, Zuo-Yan Zhu, Yong-Hua Sun

State Key Laboratory of Freshwater Ecology and Biotechnology, Institute of Hydrobiology, Chinese Academy of Sciences, China

Poster-15

Analysis of the spatiotemporal dynamics and its regulatory mechanisms of Wnt/ β -catenin and Hedgehog signaling pathways using the transgenic zebrafish lines carrying the signaling reporters.

○Nobuyuki Shimizu and Tohru Ishitani

Division of Cell Regulation Systems, Medical Institute of Bioregulation, Kyushu University

Poster-16

The heterochronic gene Lin-28 regulates cell proliferation and neural expansion during early development in zebrafish

○Junya Yamamoto, Yasuo Ouchi, Takashi Iwamoto

Department of Biomedical Sciences, Chubu University

Poster-17

Molecular analysis of the Gbx2 function in the MHB formation in zebrafish embryo.

○Yukiko Nakayama, Zhe Wang, Maiko Kanai, Hiroshi Kikuta, Kyo Yamasu

Division of Life Science, Graduate School of Science and Engineering, Saitama University

Poster-18

Role of the phosphorylation of Dpysls (CRMPs) in embryonic zebrafish.

○Rii Morimura¹, Hideomi Tanaka^{1,2} and Toshio Ohshima¹

¹ Department of Life Science and Medical Bio-Science, Waseda Univ., ² Laboratory for Developmental Gene Regulation, RIKEN Brain Science Institute (BSI)

Poster-19

Notch signaling regulates neuronal versus sensory epithelial fate choice in the zebrafish lateral line system

○Takamasa Mizoguchi¹, Satoshi Togawa¹, Koichi Kawakami² and Motoyuki Itoh¹

¹ Division of Biological Science, Graduate School of Science, Nagoya University, ² Division of Molecular and Developmental Biology, National Institute of Genetics

Poster-20

V2 interneuron development is regulated by multiple Delta-Notch signaling

○Sayumi Okigawa¹, Miho Isoda¹, Maximiliano Suster³, Hiroshi Kikuta³, Koichi Kawakami³, Motoyuki Itoh^{1,2}

¹ Nagoya Univ. Grad. Sch. Sci., Div. Biol. Sci., ² Nagoya Univ. IAR, ³ NIG.

Poster-21

Are there GnRH-producing cells in the hindbrain and the spinal cord of vertebrates?

○Toru Takigawa¹, Yutaka Daido², Kentaro Fujiwara¹, Takehiro Kusakabe^{1,2}

¹ 甲南大学 理工学部 生物学科、² 甲南大学 自然科学研究科 生物学専攻

Poster-22

Early interaction of Schwann precursors with motor axon

○Mika Sato-Maeda^{1,2}, Wataru Shoji¹

¹ Department of Cell Biol., IDAC, Tohoku University, ² Graduate School of Science, Tohoku University.

Poster-23

Developmental transition of touch response from slow muscle-mediated coilings to fast muscle-mediated burst swimming in zebrafish

Yuriko Naganawa¹, Kazutoyo Ogino² and ○Hiromi Hirata²

¹ Nagoya Medical Center, ² Center for Frontier Research, National Institute of Genetics

Poster-24

Zebrafish is a useful model for analyses of muscular dystrophies caused by the defects of POMTs and POMGnT1

○Natsuki Nukada¹, Eriko Avşar-Ban², Hiroshi Many³, Tamao Endo³, Yutaka Tamaru²
Department of Life Sciences, ¹ Faculty of Bioresources and ² Graduate School of Bioresources, Mie University, and ³ Glycobiology Research Group, Tokyo Metropolitan Institute of Gerontology.

Poster-25

Functional gene expression of human POMGnT1 using zebrafish as a host animal

○Eriko Avşar-Ban, Hisayoshi Ishikawa, Yutaka Tamaru
Department of Life Sciences, Graduate School of Bioresources, Mie University

Poster-26

A novel method for quantitative analysis of skeletal muscle mass using medaka with DsRed2-labeled skeletal muscle

○Shin-ichi Chisada, Yasutoshi Yoshiura
Aquatic Animal Health Division, National Research Institute of Aquaculture, Fisheries Research Agency

Poster-27

Genetic control for development of cerebellar neurons and neural circuits in zebrafish

○Miki Takeuchi¹, Takashi Shimizu^{1,2}, Shuichi Kani³, Young-Ki Bae³, Koji Tanabe³, Ryo Kusuda^{1,2}, Kazuhide Asawaka⁴, Koichi Kawakami⁴, and Masahiko Hibi^{1,2}
¹ Bioscience and Biotechnology Center, Nagoya University, ² Division of Biological Science, Nagoya University, ³ RIKEN CDB, ⁴ National Institute of Genetics.

Poster-28

Morphological and Functional Differentiation of the First Hair Cells from Ciliary Tether Cells in Zebrafish Inner Ear

○Masashi Tanimoto, Maya Inoue and Yoichi Oda¹
¹ Division of Biological Science, Graduate School of Science, Nagoya University

Poster-29

A large otolith is essential for sound detection by macular hair cell in zebrafish larva.

○Maya Inoue, Masashi Tanimoto, Yoichi Oda
Division of Biological Science, Graduate School of Science, Nagoya University

Poster-30

Olfactory Sensory Deafferentation Affects Neurogenesis in the Olfactory System of Adult Zebrafish

○Norihito Kishimoto^{1,2} and Kazunobu Sawamoto¹

¹ Department of Developmental and Regenerative Biology, Nagoya City University Graduate School of Medical Sciences, ² Keio University

Poster-31

Expression patterns of FGF, Wnt, Shh, and Notch signal related genes in the adult zebrafish optic tectum.

○Yoko Ito¹, Miki Dozawa¹, Hideomi Tanaka^{1,2}, Toshio Ohshima¹

¹ Department of Life Science and Medical Bioscience, Waseda Univ. ² Lab. for Developmental Gene Regulation, BSI, RIKEN

Poster-32

p53 mutation caused suppression of neurogenesis in the juvenile medaka fish brain.

○Yasuko Isoe, Teruhiro Okuyama, Kubo Takeo, Hideaki Takeuchi

Department of Biological Sciences, Tokyo University

Poster-33

Imaging of microglial phagocytosis in the gamma-ray irradiated developing brain *in vivo* using *p53(-/-)* medaka (*Oryzias latipes*), a vertebrate model

○Takako YASUDA¹, Yusuke HIBI¹, Shoji ODA^{1,2} and Hiroshi MITANI¹

¹ Department of Integrated Biosciences, Graduate School of Frontier Sciences, the University of Tokyo, ² Japan Aerospace Exploration Agency

Poster-34

Comparison of Gene Organization and Expression Pattern of Blue-Sensitive (SWS2) Opsins among Closely Related Medaka Species

○Masanori Aso¹, Naoko Takishima¹, Yoshifumi Matsumoto^{1,2}, Shoji Oda¹, Hiroshi Mitani¹, Shoji Kawamura¹

¹ Department of Integrated Biosciences, Graduate School of Frontier Sciences, University of Tokyo, ² Brain Science Institute, RIKEN

Poster-35

Bidirectionally transcribed cone opsin-miRNA gene pairs in the medaka *Oryzias latipes*

○Yutaka Daido¹, Takehiro Kusakabe^{1,2}

¹ Graduate school of Natural science, Konan University, ² Department of Biology, Faculty of science and engineering, Konan University

Poster-36

Analysis of the neural basis of mate-guarding behavior in small fish, medaka

○Saori Yokoi、Teruhiro Okuyama、Takeo Kubo、Hideaki Takeuchi

Department of Biological Sciences, Graduate School of Science, The University of Tokyo

Poster-37

Positional Cloning of a Medaka Behavior Mutant *ro*

○Koichi Shimizu^{1,2}, Chikako Inoue², Masahiko Hibi^{1,2}

¹ Division of Biological Science, Graduate School of Science, and ² Bioscience and Biotechnology Center, Nagoya University

Poster-38

Establishment of the swimming analysis technique by high-speed movies using medaka

○Maki Niihori¹, Tomomi Watanabe-Asaka¹, Shoji A. Baba² and Shoji Oda^{1,3}

¹ Space Biomedical Research Office, JAXA, ² Graduate School of Humanities and Sciences, Ochanomizu University, ³ Graduate School of Frontier Sciences, The University of Tokyo

Poster-39

Molecular and Cellular Analysis of Blood Vessel Regeneration in Zebrafish Caudal Fin

○Yoshiko Kametani^{1,2}, Shinji Takada¹, Didier Stainier²

¹ Division of molecular and developmental biology, Okazaki Institute for Integrative Bioscience, National Institute for Basic Biology, ² University of California, San Francisco

Poster-40

Roles of ADAM10/Kuzbanian in vasculogenesis of zebrafish

○Anna Tomosawa, Atsuo Iida, Atsuo Kawahara*, Atsuko Sehara-Fujisawa

Institute for frontier medical sciences, Kyoto University, *National Cerebral and Cardiovascular Center Hospital

Poster-41

G protein α 12/13 is involved in the heart tube formation via S1P signaling

○Ryu-ichi Fukuda¹, Tomoya Kotani², Atsuo Kawahara³, and Koichi Kawakami^{1,4}

¹ National Institute of Genetics. ² Hokkaido University. ³ National Cardiovascular Center Research Institute. ⁴ SOKENDAI

Poster-42

Autotaxin Affects Cardiogenesis via LPA Receptor 3 by Mediating Left-Right Asymmetry

○Shih-Lei Lai¹, Ku-Chi Tsao¹, Wang-Ling Yao¹, Anna J.S. Houben², Harald M. H. G. Albers², Huib Ovaa², Wouter H. Moolenaar² and Shyh-Jye Lee^{1,3,4,5},

¹ Institute of Zoology, ³ Department of Life Science, ⁴ Center for Biotechnology, ⁵Research Center for Developmental Biology and Regenerative Medicine, ² Division of Cell Biology, The Netherlands Cancer Institute

Poster-43

Cell clustering mechanism for organogenesis in zebrafish

○Tatsuro Matsuta¹, Naoyuki Tahara¹, Eri Sumino¹, Hisaya Kakinuma², Yoshikazu Hirate³, Hitoshi Okamoto², Yasumasa Bessho¹, Yuichi Sakumura¹, Takaaki Matsui¹

¹ Graduate School of Biological Sciences, NAIST, ² Brain Science Institute, RIKEN,

³ Institute of Molecular Embryology and Genetics, Kumamoto University

Poster-44

Wntless regulates fgf3 and dkk1b expression, affecting jaw cartilage development

○Bo-Tsung Wu¹, Ching-Hsu Yang¹ and Yung-Shu Kuan^{1,2,3}

¹ Institute of Biochemical Sciences, College of Life Science, National Taiwan University, ² Institute of Biological Chemistry, Academia Sinica, ³ Center for System Biology, National Taiwan University

Poster-45

The effects of mesenchymal stem cell secreted factors on zebrafish development.

○Htoo Wai, W. Eustace Johnson

School of Life and Health Sciences, Aston University, U.K.

Poster-46

The Observation of Craniofacial Cartilages and a Single Floor Plate Cell using a Gal4-Enhancer Trap Line

○Sohei Nakayama^{1,2}, Chihiro Kamihagi¹, Takanori Ikenaga¹, Koichi Kawakami³, and Kohei Hatta¹

¹ Graduate School of Life Science, University of Hyogo, ² Research Fellow of the Japan Society for the Promotion of Science, ³ National Institute of Genetics

Poster-47

Cytogenic characterization of zebrafish mutants with defect in spermatogonial development

○Toshihiro Kawasaki¹, Chiharu Sakai¹, Noriyoshi Sakai¹

¹ National Institute of Genetics, Genetic Strains Research Center.

Poster-48

Characterization and linkage mapping of zebrafish meiotic prophase I mutants

○Chiharu Sakai¹, Kenji Saito¹, Noriyoshi Sakai^{1, 2}

¹ Genetic Strains Research Center, National Institute of Genetics, ² Department of Genetics, Graduate University for Advanced Studies

Poster-49

A trial to dissect the flounder “hentai”: isolation of genes expressed asymmetrically in left or right side in flounder

○Hayato Yokoi¹, Daichi Kondo¹, Yuichiro Fujinami² and Tohru Suzuki¹

¹ Graduate School of Agricultural Science, Tohoku University, ² Miyako Station, National Center for Stock Enhancement, Fisheries Research Agency

Poster-50

Transient Zebrafish *Danio rerio* Express Human Viral Oncogenic v-myc Transcription Factor Derived from Breast Adenocarcinoma (MCF-7) Cell Line: Vector Construction and In vitro Transcription

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Cloning and isolation of a gene encoding the constant region of the immunoglobulin heavy-chain (IgH) from goldfish (*Carassius auratus*)

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Medaka heat shock proteins required for replication of betanodavirus

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Analysis of the roles played by a class V POU protein, Pou2/Pou5f1, in zebrafish embryogenesis

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