

# **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 Honjo<sup>1</sup>, Akira Satoh<sup>1</sup> and Judith Eisen<sup>2</sup>

<sup>1</sup> Research Core for Interdisciplinary Science, Okayama University, <sup>2</sup> 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 Nagai<sup>1</sup>, Norihito Kishimoto<sup>1,2</sup>, Kohei Shimizu<sup>1</sup>, Kazuhide Asawakawa<sup>3</sup>, Akihiro Urasaki<sup>3</sup>, Holger Knaut<sup>4</sup>, Shigenori Nonaka<sup>5</sup>, Koichi Kawakami<sup>3</sup>, and Kazunobu Sawamoto<sup>1</sup>

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

**Oral-5** 13:50-14:05

**Dickkopf controls neuromast size during lateral line development**

○Hironori Wada<sup>1</sup> and Koichi Kawakami<sup>2</sup>

<sup>1</sup> PRESTO, JST, <sup>2</sup> 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 Mochizuki<sup>1</sup>, Shohei Suzuki<sup>1</sup>, Asako Sakaue-Sawano<sup>2</sup>, Atsushi Miyawaki<sup>2</sup>, and Ichiro Masai<sup>1</sup>

<sup>1</sup> Developmental Neurobiology unit, Okinawa Institute of Science and Technology, <sup>2</sup> 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 Hozumi<sup>1</sup>, Ryo Hirabayashi<sup>1</sup>, Akio Yoshizawa<sup>1,2</sup>, Mitsuko Ogata<sup>2</sup>, Tohru Ishitani<sup>2</sup>, Makiko Tsutsumi<sup>2</sup>, Atsushi Kuroiwa<sup>2</sup>, Motoyuki Itoh<sup>2</sup>, Yutaka Kikuchi<sup>1\*</sup>

<sup>1</sup> Department of Biological Science, Graduate School of Science, Hiroshima University,

<sup>2</sup> 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 Matsui<sup>1</sup>, Akihiro Sasaki<sup>1</sup>, Naoko Akazawa<sup>1</sup>, Hifumi Otani<sup>2</sup> and Yasumasa Bessho<sup>1</sup>

<sup>1</sup> Graduate School of Biological Sciences, Nara Institute of Science and Technology,

<sup>2</sup> 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-Asaka<sup>1</sup>, Maki Niihori<sup>1</sup>, Shoji Oda<sup>1,2</sup>, Ken-ichi Iwasaki<sup>1,3</sup>, Shuji Terai<sup>4</sup>, Hiroshi Mitani<sup>2</sup> and Chiaki Mukai<sup>1</sup>

<sup>1</sup> Japan Aerospace Exploration Agency, <sup>2</sup> Nihon University School of Medicine, <sup>3</sup> The University of Tokyo, <sup>4</sup> 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 Okuyama<sup>1</sup>, Hideki Abe<sup>1</sup>, Yuji Suehiro<sup>1</sup>, Haruka Imada<sup>1</sup>, Atsuko Shimada<sup>1</sup>, Takashi Kawasaki<sup>4</sup>, Shunsuke Yuba<sup>4</sup>, Yoshihito Taniguchi<sup>3</sup>, Yasuhiro Kamei<sup>2</sup>, Minoru Tanaka<sup>2</sup>, Kiyoshi Naruse<sup>2</sup>, Hiroyuki Takeda<sup>1</sup>, Yoshitaka Oka<sup>1</sup>, Takeo Kubo<sup>1</sup>, Hideaki Takeuchi<sup>1</sup>

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

**Oral-15** 9:15-9:30

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

○Satomi Tsuboko<sup>1</sup>, Tetsuaki Kimura<sup>2</sup>, Yuji Suehiro<sup>3</sup>, Teruhiro Okuyama<sup>2</sup>, Atsuko Shimada<sup>1</sup>, Hiroyuki Takeda<sup>1</sup>, Kiyoshi Naruse<sup>2</sup>, Takeo Kubo<sup>1</sup>, Hideaki Takeuchi<sup>1</sup>

<sup>1</sup> Graduate School of Science, The University of Tokyo, <sup>2</sup> Laboratory of Bioresources, National Institute for Basic Biology, <sup>3</sup> 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<sup>1,2</sup>, Koichi Kawakami<sup>1,2</sup>

<sup>1</sup> Department of Genetics, Graduate University for Advanced Studies (SOKENDAI),

<sup>2</sup> National Institute of Genetics

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

**Functional analysis of the habenulo-raphé pathway using genetic manipulation**

○Ryunosuke Amo<sup>1,2</sup>, Masakazu Agetsuma<sup>1</sup>, Masae Kinoshita<sup>1</sup>, Toshiyuki Shiraki<sup>1</sup>, Shin-ichi Higashijima<sup>3</sup>, Masaru Matsuda<sup>4</sup>, Maximiliano L Suster<sup>5</sup>, Koichi Kawakami<sup>5</sup>, Toshio Ohshima<sup>2</sup>, Hidenori Aizawa<sup>1</sup>, and Hitoshi Okamoto<sup>1,2</sup>

<sup>1</sup> RIKEN BSI, <sup>2</sup> Waseda University, <sup>3</sup> NIPS, Okazaki Institute for Integrative Bioscience, <sup>4</sup> Utsunomiya University, <sup>5</sup> 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<sup>1,2</sup>, Keiji Inohaya<sup>3</sup>, Otto Baba<sup>1</sup>, Makoto. J. Tabata<sup>1</sup>, R.A.R.K Ratnayake<sup>1</sup>, Dawud Abduweli<sup>1</sup>, Shohei Kasugai<sup>2,4</sup>, Hiroshi Mitani<sup>5</sup>, and ○Yoshiro Takano<sup>1</sup>

<sup>1</sup> Section of Biostructural Science, Graduate School of Tokyo Medical and Dental University, <sup>2</sup> International Research Center for Molecular Science in Tooth and Bone Diseases, Global COE, Tokyo Medical and Dental University, <sup>3</sup> Tokyo Institute of Technology, <sup>4</sup> Graduate School of Tokyo Medical and Dental University, <sup>5</sup> 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 Tani<sup>1</sup>, Rie Kusakabe<sup>1</sup>, Kiyoshi Naruse<sup>2</sup>, Hiroshi Sakamoto<sup>1</sup>, Kunio Inoue<sup>1</sup>

<sup>1</sup> Department of Biology, Graduate School of Science, Kobe University, <sup>2</sup> 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<sup>1,2</sup>, Masato Yamada<sup>2</sup>, Yasuhiro Kamei<sup>3</sup>, Tomoko Ishikawa<sup>4</sup>, Takeshi Todo<sup>4</sup>, Yoshitaka Nagahama<sup>5</sup>, Masaru Matsuda<sup>2</sup>

<sup>1</sup> Tokyo University of Agriculture and Technology, <sup>2</sup> Utsunomiya University, <sup>3</sup> National Institute for Basic Biology, <sup>4</sup> Osaka University, <sup>5</sup> 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 Lai<sup>1</sup>, Ku-Chi Tsao<sup>1</sup>, Wang-Ling Yao<sup>1</sup>, Anna J.S. Houben<sup>2</sup>, Harald M. H. G. Albers<sup>2</sup>, Huib Ovaa<sup>2</sup>, Wouter H. Moolenaar<sup>2</sup> and Shyh-Jye Lee<sup>1,3,4,5</sup>

<sup>1</sup> Institute of Zoology, <sup>3</sup> Department of Life Science, <sup>4</sup> Center for Biotechnology, <sup>5</sup> Research Center for Developmental Biology and Regenerative Medicine, <sup>2</sup> 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 Ashino<sup>1</sup>, Taro Tsujimura<sup>1,2</sup>, Tomohiro Hosoya<sup>1</sup>, Shoji Kawamura<sup>1</sup>  
<sup>1</sup> Department of Integrated Biosciences, Graduate School of Frontier Sciences, University of Tokyo <sup>2</sup>Developmental Biology Unit, EMBL

**Oral-30** 14:15-14:30

**Cyclostome Lampreys as a Developmental Model**

○Rie Kusakabe<sup>1</sup>  
<sup>1</sup>Department 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 Nagao<sup>1</sup>, Tomoko Adachi<sup>2, 3</sup>, Atsushi Shimizu<sup>4</sup>, Ryoko Seki<sup>2</sup>, Chikako Inoue<sup>2</sup>, Yasuhiro Kamei<sup>5</sup>, Ikuyo Hara<sup>6</sup>, Yoshihito Taniguchi<sup>7</sup>, Kiyoshi Naruse<sup>6</sup>, Robert N. Kelsh<sup>3</sup>, Yuko Wakamatsu<sup>2</sup>, Masahiko Hibi<sup>2</sup>, Hisashi Hashimoto<sup>2</sup>

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

### Poster-4

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

○Gembu Abe<sup>1</sup>, Kazuhide Asakawa<sup>1,2</sup>, Aki Ito<sup>1</sup>, Ryuichi Fukuda<sup>1</sup>, Akira Muto<sup>1</sup>, Pradeep Lal<sup>1,2</sup>, Hironori Wada<sup>3</sup>, Koichi Kawakami<sup>1</sup>

<sup>1</sup>National Institute of Genetics, Division of Molecular and Developmental Biology,

<sup>2</sup>SOKENDAI, <sup>3</sup>PRESTO, 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<sup>1,2</sup>, Gembu Abe<sup>1</sup>, Kazuhide Asakawa<sup>1,2</sup>, Ryuichi Fukuda<sup>1</sup>, Pradeep Lal<sup>1</sup>, Akira Muto<sup>1</sup>, Hironori Wada<sup>1</sup>

<sup>1</sup> Division of Molecular and Developmental Biology, National Institute of Genetics,

<sup>2</sup> 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 Hara<sup>1</sup>, Tokiro Ishikawa<sup>1</sup>, Tetsuya Okada<sup>1</sup>, Tomoko Ishikawa<sup>2</sup>, Takeshi Todo<sup>2</sup>, Kazutoshi Mori<sup>1</sup>

<sup>1</sup>Department of Biophysics, Graduate School of Science, Kyoto University, <sup>2</sup>Department 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 Ishikawa<sup>1</sup>, Tetsuya Okada<sup>1,5</sup>, Yoshihito Taniguchi<sup>4</sup>, Tomoko Ishikawa<sup>3</sup>, Takeshi Todo<sup>3</sup>, Shun-ichi Takeda<sup>2,5</sup>, Kazutoshi Mori<sup>1,5</sup>

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

#### **Poster-12**

##### **Knockdown of Stathmin4/RB3 impairs early neuron development in zebrafish**

○Meng-Ju Lin<sup>1</sup> and Shyh-Jye Lee<sup>1,2,3,4</sup>

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

#### **Poster-13**

##### **Microtubule-Dependent Dorsal Determination in Zebrafish**

○Hiromu Hino<sup>1</sup>, Ryoko Seki<sup>2</sup>, Takashi Shimizu<sup>1,2</sup>, and Masahiko Hibi<sup>1,2</sup>

<sup>1</sup> Division of Biological Science, Graduate School of Science, and <sup>2</sup> 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/ $\beta$ -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 Morimura<sup>1</sup>, Hideomi Tanaka<sup>1,2</sup> and Toshio Ohshima<sup>1</sup>  
<sup>1</sup> Department of Life Science and Medical Bio-Science, Waseda Univ., <sup>2</sup> 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 Mizoguchi<sup>1</sup>, Satoshi Togawa<sup>1</sup>, Koichi Kawakami<sup>2</sup> and Motoyuki Itoh<sup>1</sup>  
<sup>1</sup> Division of Biological Science, Graduate School of Science, Nagoya University, <sup>2</sup> Division of Molecular and Developmental Biology, National Institute of Genetics

#### **Poster-20**

##### **V2 interneuron development is regulated by multiple Delta-Notch signaling**

○Sayumi Okigawa<sup>1</sup>, Miho Isoda<sup>1</sup>, Maximiliano Suster<sup>3</sup>, Hiroshi Kikuta<sup>3</sup>, Koichi Kawakami<sup>3</sup>, Motoyuki Itoh<sup>1,2</sup>  
<sup>1</sup> Nagoya Univ. Grad. Sch. Sci., Div. Biol. Soi., <sup>2</sup> Nagoya Univ. IAR, <sup>3</sup> NIG.

#### **Poster-21**

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

○Toru Takigawa<sup>1</sup>, Yutaka Daido<sup>2</sup>, Kentaro Fujiwara<sup>1</sup>, Takehiro Kusakabe<sup>1,2</sup>  
<sup>1</sup> 甲南大学 理工学部 生物学科、<sup>2</sup> 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<sup>1,2</sup>, Wataru Shoji<sup>1</sup>  
<sup>1</sup> Department of Cell Biol., IDAC, Tohoku University, <sup>2</sup> 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 Naganawa<sup>1</sup>, Kazutoyo Ogino<sup>2</sup> and ○Hiromi Hirata<sup>2</sup>  
<sup>1</sup> Nagoya Medical Center, <sup>2</sup> 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 Nukada<sup>1</sup>, Eriko Avşar-Ban<sup>2</sup>, Hiroshi Many<sup>3</sup>, Tamao Endo<sup>3</sup>, Yutaka Tamaru<sup>2</sup>  
Department of Life Sciences, <sup>1</sup> Faculty of Bioresources and <sup>2</sup> Graduate School of Bioresources, Mie University, and <sup>3</sup> 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 Takeuchi<sup>1</sup>, Takashi Shimizu<sup>1,2</sup>, Shuichi Kani<sup>3</sup>, Young-Ki Bae<sup>3</sup>, Koji Tanabe<sup>3</sup>, Ryo Kusuda<sup>1,2</sup>, Kazuhide Asawaka<sup>4</sup>, Koichi Kawakami<sup>4</sup>, and Masahiko Hibi<sup>1,2</sup>  
<sup>1</sup> Bioscience and Biotechnology Center, Nagoya University, <sup>2</sup> Division of Biological Science, Nagoya University, <sup>3</sup> RIKEN CDB, <sup>4</sup> 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 Oda<sup>1</sup>  
<sup>1</sup> 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**

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**Poster-31**

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

○Yoko Ito<sup>1</sup>, Miki Dozawa<sup>1</sup>, Hideomi Tanaka<sup>1,2</sup>, Toshio Ohshima<sup>1</sup>

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**Poster-32**

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

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

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**Poster-33**

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

○Takako YASUDA<sup>1</sup>, Yusuke HIBI<sup>1</sup>, Shoji ODA<sup>1,2</sup> and Hiroshi MITANI<sup>1</sup>

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**Poster-34**

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

○Masanori Aso<sup>1</sup>, Naoko Takishima<sup>1</sup>, Yoshifumi Matsumoto<sup>1,2</sup>, Shoji Oda<sup>1</sup>, Hiroshi Mitani<sup>1</sup>, Shoji Kawamura<sup>1</sup>

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**Poster-35**

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

○Yutaka Daido<sup>1</sup>, Takehiro Kusakabe<sup>1,2</sup>

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#### **Poster-36**

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

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

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#### **Poster-37**

##### **Positional Cloning of a Medaka Behavior Mutant *ro***

○Koichi Shimizu<sup>1,2</sup>, Chikako Inoue<sup>2</sup>, Masahiko Hibi<sup>1,2</sup>

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#### **Poster-38**

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

○Maki Niihori<sup>1</sup>, Tomomi Watanabe-Asaka<sup>1</sup>, Shoji A. Baba<sup>2</sup> and Shoji Oda<sup>1,3</sup>

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#### **Poster-39**

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

○Yoshiko Kametani<sup>1,2</sup>, Shinji Takada<sup>1</sup>, Didier Stainier<sup>2</sup>

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#### **Poster-40**

##### **Roles of ADAM10/Kuzbanian in vasculogenesis of zebrafish**

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

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#### **Poster-41**

##### **G protein $\alpha$ 12/13 is involved in the heart tube formation via S1P signaling**

○Ryu-ichi Fukuda<sup>1</sup>, Tomoya Kotani<sup>2</sup>, Atsuo Kawahara<sup>3</sup>, and Koichi Kawakami<sup>1,4</sup>

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**Poster-42**

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

○Shih-Lei Lai<sup>1</sup>, Ku-Chi Tsao<sup>1</sup>, Wang-Ling Yao<sup>1</sup>, Anna J.S. Houben<sup>2</sup>, Harald M. H. G. Albers<sup>2</sup>, Huib Ovaa<sup>2</sup>, Wouter H. Moolenaar<sup>2</sup> and Shyh-Jye Lee<sup>1,3,4,5</sup>.

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**Poster-43**

**Cell clustering mechanism for organogenesis in zebrafish**

○Tatsuro Matsuta<sup>1</sup>, Naoyuki Tahara<sup>1</sup>, Eri Sumino<sup>1</sup>, Hisaya Kakinuma<sup>2</sup>, Yoshikazu Hirate<sup>3</sup>, Hitoshi Okamoto<sup>2</sup>, Yasumasa Bessho<sup>1</sup>, Yuichi Sakumura<sup>1</sup>, Takaaki Matsui<sup>1</sup>

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**Poster-44**

**Wntless regulates fgf3 and dkk1b expression, affecting jaw cartilage development**

○Bo-Tsung Wu<sup>1</sup>, Ching-Hsu Yang<sup>1</sup> and Yung-Shu Kuan<sup>1,2,3</sup>

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**Poster-45**

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

○Htoo Wai, W. Eustace Johnson

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**Poster-46**

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

○Sohei Nakayama<sup>1,2</sup>, Chihiro Kamihagi<sup>1</sup>, Takanori Ikenaga<sup>1</sup>, Koichi Kawakami<sup>3</sup>, and Kohei Hatta<sup>1</sup>

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**Poster-47**

**Cytogenic characterization of zebrafish mutants with defect in spermatogonial development**

○Toshihiro Kawasaki<sup>1</sup>, Chiharu Sakai<sup>1</sup>, Noriyoshi Sakai<sup>1</sup>

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**Poster-48**

**Characterization and linkage mapping of zebrafish meiotic prophase I mutants**

○Chiharu Sakai<sup>1</sup>, Kenji Saito<sup>1</sup>, Noriyoshi Sakai<sup>1, 2</sup>

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**Poster-49**

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

○Hayato Yokoi<sup>1</sup>, Daichi Kondo<sup>1</sup>, Yuichiro Fujinami<sup>2</sup> and Tohru Suzuki<sup>1</sup>

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**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**

○Tamer Said, Tae-Hyoun Kim, So-Na Jang, and Jae-Hak Park

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**Poster-51**

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

○Hisayoshi Ishikawa<sup>1</sup>, Yutaka Tamaru<sup>1</sup>

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**Poster-52**

**Medaka heat shock proteins required for replication of betanodavirus**

○Kosuke Zenke and Yasushi Okinaka

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**Poster-53**

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

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