Acknowledgement of Sponsorship

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General Information for Attendance

Venue

Tokushima Arts Foundation For Culture
2-14 Aiba-cho, Tokushima-city, Tokushima, 770-0835 Japan
Tel: +81-88-622-8121 Fax: +81-88-622-8123
E-mail: info@kyoubun.or.jp

Official Language

The official language of the meeting is English.
There will be no simultaneous translation provided.

Registrations

Advanced Registration is no longer available. Please register at the conference venue. (On-site Registration is available throughout the conference period.)

Registration Fees (On-site)

General JSDB/ISDB/APDBN members: • 8,000

Student JSDB/ISDB/APDBN members: • 5,000
General, non-member: • 9,000

Students, non-member: • 6,000

*Registration includes access to all scientific sessions and exhibits.
*Students should provide the name and affiliation of their supervisor.

JSDB General Assembly: May 29 (Thursday), 15:20-16:30, Room A

Payment

All payments must be made in Japanese yen by credit card or by bank draft payable to the 41st Annual Meeting for the JSDB. Please send payment with the completed registration form to the secretariat. No checks or money orders will be accepted. All bank charges are to be borne by the remitter.

Name tags

Name tags have been sent or are provided at registration. You are requested to wear your name tag at all times during the conference.

Lunch（弁当販売）

Bentos - boxed lunches - are available. Please buy a lunch ticket at the registration office **until 9:30 AM.**

Bentos (free, the number is **limited.)** are provided in luncheon seminars or a luncheon forum.

Refreshments

Complimentary refreshments are available in the poster session rooms.

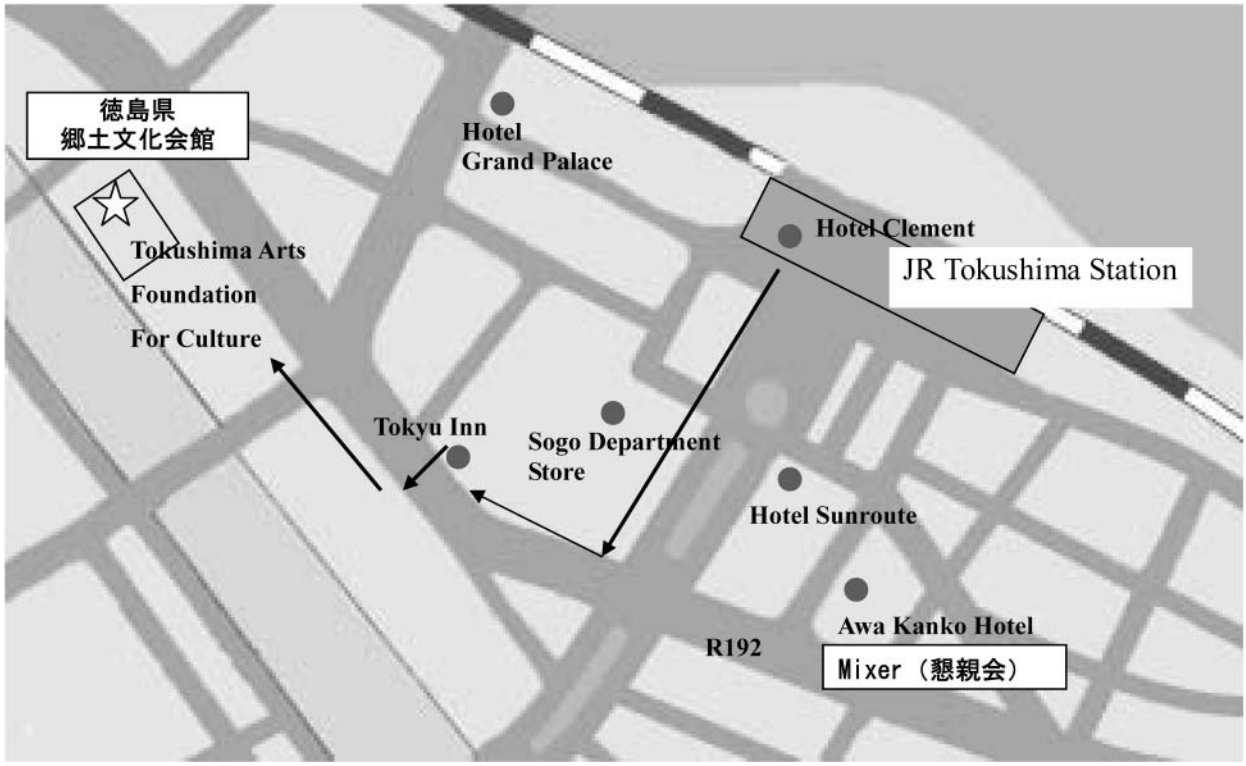
Access Guide to Tokushima

■By airplane				
Tokyo	1h 10 min	Tokushima Airport	30 min (by bus)	JR Tokushima Station
Nagoya	1h			
Fukuoka	1h 30 min			

■By JR				
JR Okayama	1 h via Seto Bridge	JR Takamatsu	Ko-toku line (Express) 1 h 10 min	JR Tokushima Station

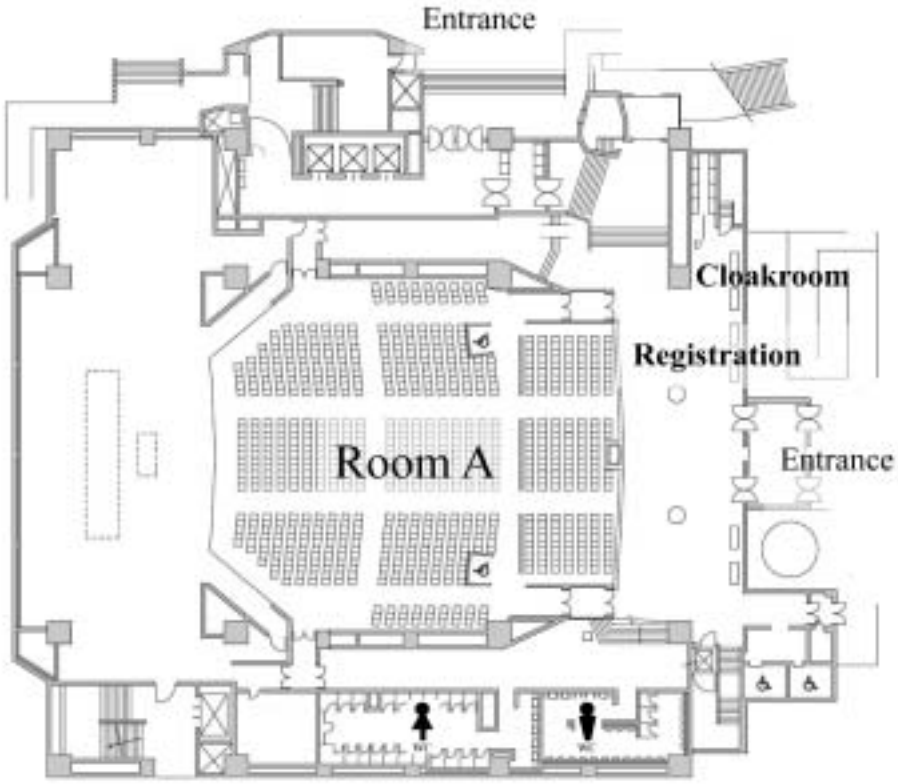
■By bus		
Kansai Airport	2 h 50 min	JR Tokushima Station
Kyoto	2 h 50 min	
Osaka	2 h 30 min	
Kobe	1 h 40 min	
Tokyo	8 h 40 min	
Takamatsu, Matsuyama, Kochi	2 h～3 h	

Access Guide to Tokushima Arts Foundation for Culture



Floor plan in Tokushima Arts Foundation For Culture

1 F



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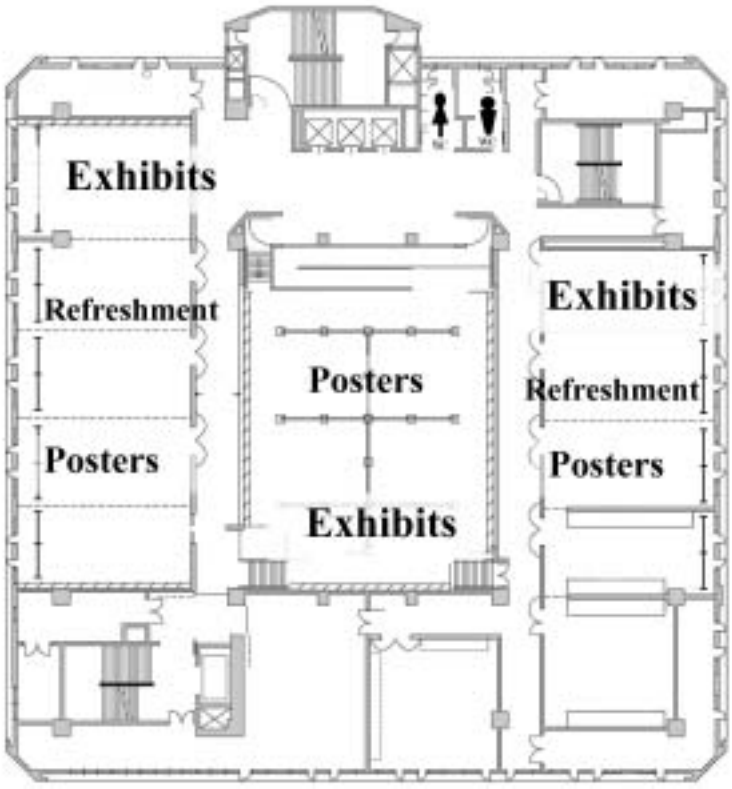
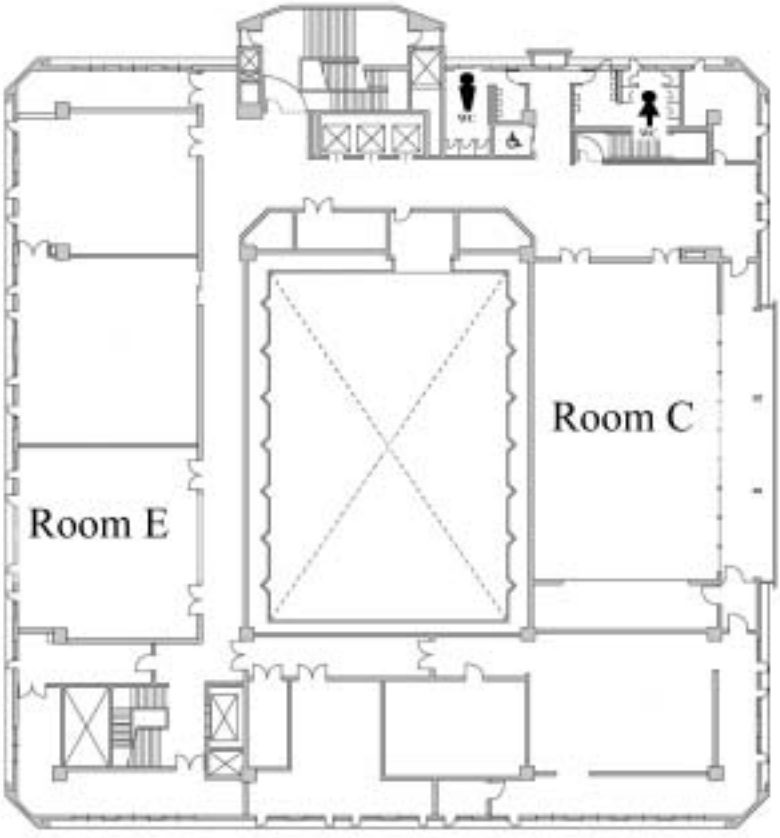


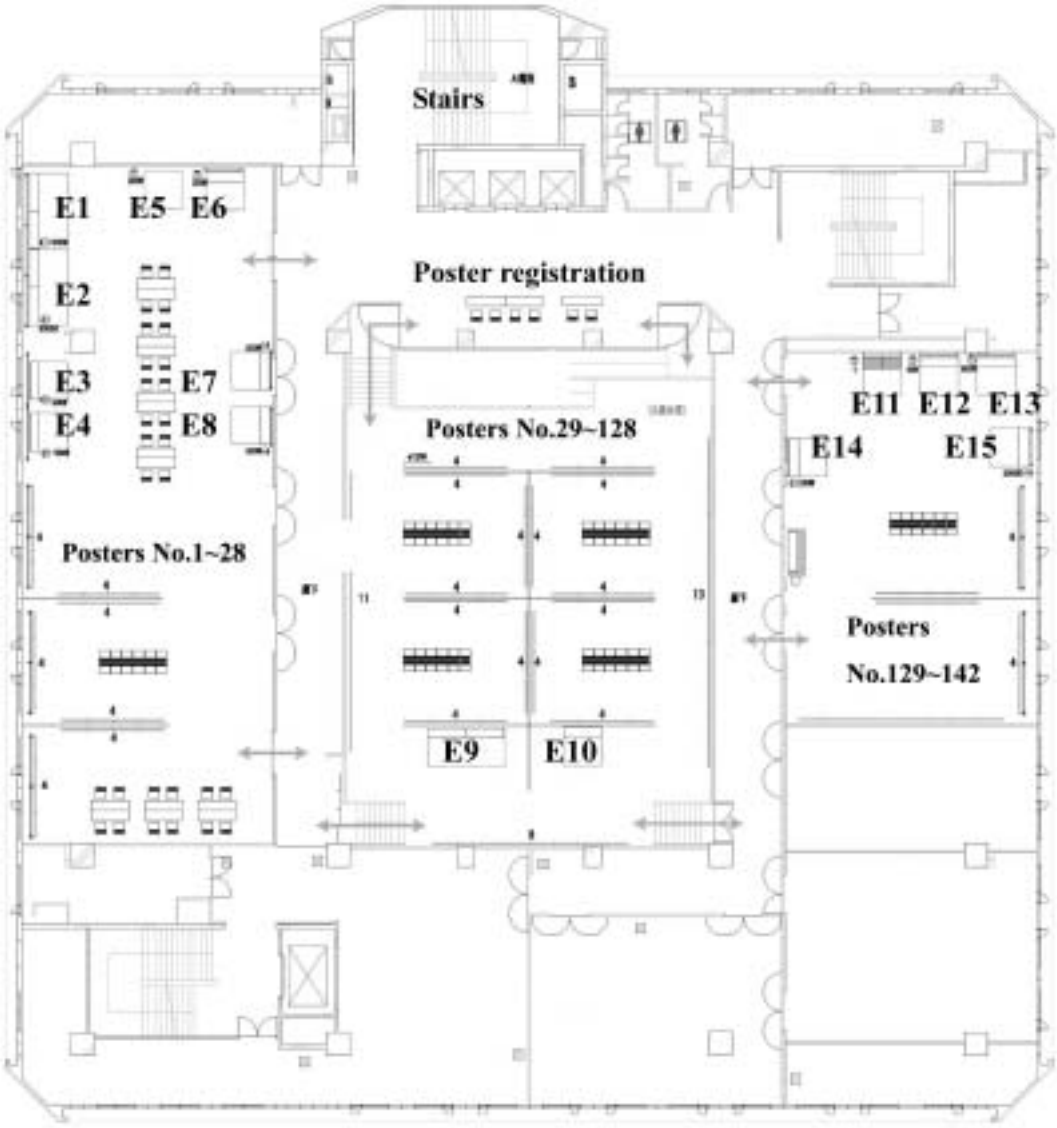
4 F


Resting Room
for parents
Nursery
Headquarters
Room B
Room D
(Internet
from 13:00pm
on 28th May)

5 F


Room C
Room E

Posters and Exhibits at the 3rd Floor



E1: アロカ株式会社 (ALOKA Co., LTD.)
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Program at a glance

May 27 (Tue)

Satellite workshops organized by junior members (in Japanese)

Room	Floor	13:00 -	16:00-17:00	17:00-21:00
B	4		Set-up	Morphogenetic dynamics of living cells 形態形成のダイナミクス
C	5		Set-up	ツメガエルが拓く胚発生・形態形成研究の新展開
D	4	Board meeting	Set-up	多分野で活躍する小型魚類
E	5		Set-up	Molecular mechanisms of the vertebrate brain evolution

May 28 (Wed)

<table>
<tr><th>Room</th><th>Floor</th><th>9:00-12:00</th><th>12:10-13:00</th><th>13:10-15:10</th><th>15:15-17:15</th><th>17:15-19:15</th></tr>
<tr><td>A</td><td>1</td><td>Symposium 1
Stem cells, regeneration</td><td></td><td>Workshop 1
Morphogenesis (axis formation, segmentation, etc)</td><td>Workshop 1
Morphogenesis (axis formation, segmentation, etc)</td><td></td></tr>
<tr><td>B</td><td>4</td><td>Symposium 2
Neural development and network formation</td><td>Luncheon 1 (Imaging (NIKON))</td><td>Workshop 2
Organogenesis</td><td>Workshop 3
Neural development & behaviour and neural circuit development</td><td></td></tr>
<tr><td>C</td><td>5</td><td>Symposium 3
Disease models and the new technology in fish science</td><td></td><td>Workshop 4
Signaling in development</td><td>Workshop 5
Cell biology of development (growth control, adhesion, migration)</td><td></td></tr>
<tr><td>D</td><td>4</td><td>Symposium 4
Origin of vertebrates from developmental perspectives</td><td colspan="4">Discussion room (Internet access)</td></tr>
<tr><td>Exhibition room</td><td>3</td><td colspan="5">Poster 1 Discussion time: 17:15~18:15 for even No. posters.
18:15~19:15 for odd No. posters.</td></tr>
<tr><td>Exhibition room</td><td>3</td><td colspan="4">Exhibition (Equipments, Books)</td><td></td></tr>
</table>

May 29 (Thu)

Room	Floor	9:00-12:00	12:10-13:00	13:10-15:10	15:15-16:30	16:30-18:30	19:00-21:00
A	1	**Plenary lecture 1**		**Plenary lecture 2**	**General assembly**		
B	4		**Luncheon forum Gender-equal society**				
D	4	Discussion room (Internet access)					
Exhibition room	3	**Poster 1**	**Poster 2** Discussion time: 16:30~17:30 for even No. 17:30~18:30 for odd No.				
Exhibition room	3	**Exhibition (Equipments, Books)**					
Awa Kanko Hotel							**Mixer**

May 30 (Fri)

Room	Floor	9:00-12:00	12:10-13:00	13:10-15:10
A	1	**Symposium 5** Early development		**Workshop 6** Reproduction & gametology
B	4	**Symposium 6** RNA and development	**Luncheon 2 (iPS (ALOKA))**	**Workshop 7** Evolution and development
C	5	**Symposium 7** Stem cell regulation: niche and signaling		**Workshop 8** Stem cells and pluripotency, regeneration
D	4	Discussion room (Internet access)		
Exhibition Room	3	**Poster 2**		
Exhibition Room	3	**Exhibition (Equipments, Books)**		

May 31 (Sat)

Public Lectures

Room	Floor	13:00~16:00
A	1	**Public lectures (in Japanese)**

Nursery is available on 4th floor. 託児所

期　　間	2008 年 5 月 28 日（水)～ 5 月 30 日（金）
保育時間	5 月 28 日 (水)　8:30 ～ 19:00 5 月 29 日 (木)　8:30 ～ 19:00 5 月 30 日 (金)　8:00 ～ 18:00 （＊原則としてお子様の昼食は，保護者が一緒におとりください。）
対　　象	生後 10 ヶ月から未就学児まで（大会参加者のお子様に限る）
保育形態	ベビーシッター会社からの派遣シッターによる託児
委 託 先	株式会社クラッシー
保 育 料	500 円／時間（1 時間未満は切上げ） 保育料のお支払いは，お子様をお預けの際にお願いします。 ＊申込みによりシッターが派遣されますので，当日のキャンセルや，実際の利用時間が申込時間よりも短くなった場合は，申込時の保育料のお支払いをお願いします。また，利用時間をやむを得ず延長された場合には，延長分のお支払いをお願いします。
申込方法	「保育室利用規約および同意書」と「保育室利用申込書」をダウンロードし，必要事項をご記入の上，下記まで FAX にてお申込みください。お申込みされた方には，追ってシッター会社より確認の連絡があります。万一 5 月 21 日（水）までにシッター会社より連絡がない場合は，下記シッター会社宛に必ずお電話にてお問い合わせください（メール，FAX 受信不備等による申込み漏れ防止のため)。 ［保育室利用規約および同意書］　［保育室利用申込書］
申 込 先	株式会社クラッシー TEL : 088-623-6391 FAX : 088-623-6403 e-mail : takechi@classy-concierge.com
申込締切	5 月 14 日（水） 16:00

親子休憩室 (4 階): 昼食などに使用してください (無料)。

DGD Editorial Meeting & JSDB Board Meeting:

May 27 (Tuesday), 13:00-16:00, Room D, 4th floor

Mixer: May 29 (Thursday)

19:00-21:00,

Awa Kanko Hotel (See map)

Mixer Ticket (On-site):

General JSDB/ISDB/APDBN members: •8,000

Student JSDB/ISDB/APDBN members: •4,000

Students, non-member: •5,000

Mixer is to be held at Awa Kanko Hotel, 3-16-3 Ichiban-Cho, Tokushima City, Tokushima, 770-0833 Japan.

Tel: +81-88-622-5161 Fax: +81-88-622-2857

E-mail: info@awakan.jp

Plenary Lectures

Plenary lecture 1

Thursday, May 29 09:00-12:00 Room A
Chairperson: Kazuhiro W. Makabe (Universtiy of Tokushima)

PL1-01 09:00-10:00 Developmental Genomics of *Ciona intestinalis*
カタユウレイボヤの発生ゲノム科学
○Noriyuki Satoh (Dept. Zool., Kyoto Univ. & OIST)

Chairperson: Yumiko Saga (Nat'l Inst. of Genetics)

PL1-02 10:00-11:00 Cis-sequence regulation and its evolution in vertebrate *Otx2* gene
○Shinichi Aizawa (Center for Developmental Biology (CDB), RIKEN Kobe)

Chairperson: Sumihare Noji (University of Tokushima)

PL1-03 11:00-12:00 The diversity and biomimetics of optical devices in nature
○Andrew Parker (University of Oxford)

Plenary lecture 2

Thursday, May 29 13:10-15:10 Room A
Chairperson: Shinichi Aizawa (CDB, RIKEN, Kobe)

PL2-01 13:10-14:10 Cell Shape Regulation by Cell Adhesion Machinery
○Masatoshi Takeichi (CDB, RIKEN, Kobe)

Chairperson: Naoto Ueno (Nat'l Inst. for Basic Biol.)

PL2-02 14:10-15:10 Integrating the BMP/DPP and Wnt signaling pathways at the level of Smad1/Mad phosphorylations
○Eddy M. De Robertis (HHMI/UCLA)

Symposia

Symposium 1: Stem cells and regeneration

Wednesday, May 28 09:00-12:00 Room A
Chairperson: Kiyokazu Agata

S1-01 09:00-09:25 The stem cell system in sponge: studies using asexual reproduction system as a model system
カイメンにおける幹細胞システム：無性生殖系を用いた解析
○Noriko Funayama (Dept. of Biophys., Graduate School of Science, Kyoto Univ.)

S1-02 09:25-09:55 Stem Cells in Immortal Hydra
○Thomas Bosch (CAU)

S1-03 09:55-10:20 New view of planarian stem cell system
プラナリアにおける休止期幹細胞の役割
○Norito Shibata (Dept. of Biophys, Kyoto Univ.)

S1-04 10:20-10:45 Origin of germline and somatic stem cells in Oligochaeta, Annelida
環形動物貧毛類（ヤマトヒメミミズ）における生殖系列および体細胞系列幹細胞
○Shin Tochinai (Dept. Nat. Hist. Sci., Fac. Sci., Hokkaido Univ.)

S1-05 10:45-11:10 Stem cells and transdifferentiation in colonial tunicates
群体ボヤにおける幹細胞と分化転換
○Kazuo Kawamura, Takeshi Sunanaga (Kochi University)

S1-06 11:10-11:35 Molecular basis for proximodistal respecification in insect leg regeneration
昆虫の脚再生における遠近軸形成の分子基盤
○Taro Mito[1], Taro Nakamura[1], Tetsuya Bando[2], Hideyo Ohuchi[1], Sumihare Noji[1,2] (Dept. Life Systems, Inst. Tech. and Sci. Univ. Tokushima[1], Tokushima Intellectual Cluster, Univ. Tokushima[2])

S1-07 11:35-12:00 Patterning-deficient limb regeneration in *Xenopus*
○Koji Tamura, Nayuta Yakushiji, Shiro Ohgo, Hitoshi Yokoyama (Grad. Sch. of Life Sci., Tohoku Univ.)

Symposium 2: Neural development and network formation

Wednesday, May 28 09:00-12:00 Room B
Chairperson: Noriko Osumi

S2-01 09:00-09:40 The cell biology of neural stem and progenitor cells
○Wieland B. Huttner (Max Planck Institute of Molecular Cell Biology and Genetics, Dresden, Germany)

S2-02 09:40-10:10 Regulation of cell cycle parameters and cortical patterning by FGF receptor 3
○Tomoko Iwata (Division of Cancer Sciences and Molecular Pathology, University of Glasgow)

S2-03 10:10-10:40 Role of semaphorin/plexin signal in the developing nervous system
神経回路形成における Semaphorin/plexin シグナルの役割
○Fumikazu Suto (Div. of Develop. Neurosci., Tohoku Univ. Grad. Sch. of Med.)

S2-04 10:40-11:10 Long-term labeling and ablation reveal requirement of continuous neurogenesis for the structural and functional integrity of the adult forebrain
○Itaru Imayoshi, Ryoichiro Kageyama (IVR)

S2-05 11:10-11:50 The role of Pax6 and its downstream molecules in embryonic and postnatal neurogenesis
○Noriko Osumi (Dept. of Dev. Neurobiol., Tohoku Univ. Grad. Sch. of Med.)

Symposium 3: Disease models and the new technology in fish science

Wednesday, May 28 09:00-12:00 Room C
Chairperson: Akira Kudo, Hiroyuki Takeda

S3-01 09:00-09:50 Endodermal organ development and regeneration
○Didier Stainier (UCSF)

S3-02 09:50-10:15 A mutant medaka fish identifies a novel cytoplasmic protein responsible for human primary ciliary dyskinesia
メダカ変異体から繊毛病・繊毛形成の普遍的メカニズムへ

○Hiroyuki Takeda (Dept. of Biol. Sci., University of Tokyo)

S3-03 10:15-10:40 Vertebral bone formation in Medaka
メダカ脊椎骨形成
○Akira Kudo (Dept. Biol. Inf., Tokyo Inst. Technol.)

S3-04 10:40-11:05 Development of thymus and T lymphocytes in medaka
○Yousuke Takahama, Norimasa Iwanami (Univ Tokushima)

S3-05 11:05-11:30 What guides blood and lymph vessels to the gross anatomical structure?
血管とリンパ管の肉眼解剖学的構造を決定する因子
○Sumio Isogai[1,2], Eiji Kimura[1], Brant Weinstein[2], Karina Yaniv[2], Jiro Hitomi[1](IMU[1], NICHD, NIH[2])

S3-06 11:30-11:55 Inactivation of Medaka Genes by Target-Selected Mutagenesis.
特定の遺伝子を破壊したメダカの作製
○Yoshihito Taniguchi[1], Atsushi Toyoda[2], Yoshiyuki Sakaki[2], Shunichi Takeda[1] (Kyoto Universtiy[1], RIKEN GSC[2])

Symposium 4: Origin of vertebrates from developmental perspectives

Wednesday, May 28 09:00-12:00 Room D
Chairperson: Shigeru Kuratani

S4-01 09:00-09:35 Evolutionary changes in developmental patterns and processes towards gnathostomes
○Shigeru Kuratani (CDB, RIKEN)

S4-02 09:35-10:10 Evolutionary origin of the vertebrate lung
肺の進化的起源
○Masataka Okabe (Dept. of Anat., Jikei Univ. School of Med.)

S4-03 10:10-10:45 Evolution of vertebrate fins and limbs
脊椎動物の対鰭と四肢の進化と多様化
○Mikiko Tanaka (Grad. Sch. of Biosci. & Biotechnol., Tokyo Inst. of Technol.)

S4-04 10:45-11:20 Morphological evolution and physiological evolution: a molecular basis for ascidian ś“ simple ”tadpole to fluently swim
形態学的進化と生理学的進化：ホヤの“ 単純な ”オタマジャクシが滑らかに泳ぐには…
○Atsuo Nishino[1,2], Shoji Baba[3], Yasushi Okamura[2,4] (Dept. of Biol. Sci., Grad. Sch. of Sci., Osaka Univ.[1], Okazaki Inst. for Integr. Biosci., Natl. Inst. of Nat. Sci.[2], Dept. of Adv. Biosci., Grad. Sch. of Hum. & Sci., Ochanomizu Univ.[3], Dept. of Physiol., Grad. Sch. of Med., Osaka Univ.[4])

S4-05 11:20-12:00 A systems biology approach to ascidian early development: how many ways to make a tadpole?
○Patrick Lemaire (IBDML)

Symposium 5: Early development

Friday, May 30 09:00-12:00 Room A
Chairperson: Masahiko Hibi, Hiroshi Sasaki

S5-01 09:00-09:32 Tead4 is required for specification of trophectoderm in pre-implantation mouse embryos
転写因子 Tead4 は着床前マウス胚の栄養外胚葉の形成に必要である
Noriyuki Nishioka[1], Shinji Yamamoto[1], Kenjiro Adachi[2], Hiroshi Kiyonari[3], Mitsunori Ota[1], KEN-ICHI Inoue[3], Hiroko Sato[1], Atsushi Sawada[1], Kazuki Nakao[3], Hitoshi Niwa[2], ○Hiroshi Sasaki[1] (Lab. Emb. Ind., RIKEN CDB[1], Lab. Pluri. Cell Studies, RIKEN CDB[2], LARGE, RIKEN CDB[3])

S5-02 09:32-10:04 Origin of body axis in the mouse embryo
マウス胚における体軸の起源
○Hiroshi Hamada (Osaka University)

S5-03 10:04-10:36 Physical forces generated by cells and sensed by cells.
機械的刺激の受容, 反応系と形態形成
Yasuyuki Kida, Shuhei Kakizaki, Kota Miyasaka, Minoru Omi, ○Toshihiko Ogura (IDAC)

S5-04 10:36-11:08 Roles of the PCP gene *prickle* in vertebrate development
脊椎動物の発生における PCP 遺伝子 *prickle* の役割
○Naoto Ueno (NIBB)

S5-05 11:08-12:00 Genetic regulation of gastrulation in zebrafsih
○Lilianna Solnica-Krezel, Christina Speirs, Diane Sepich, Isabelle Roszko, Simon Wu (Vanderbilt)

Symposium 6: RNA and development

Friday, May 30 09:00-12:00 Room B
Chairperson: Haruhiko Siomi

S6-01 09:00-09:30 Different types of small RNAs and Argonautes are utilized to repress retrotransposons in germline and somatic cells
○Haruhiko Siomi[1,2] (Institute for Genome Research, University of Tokushima[1], Department of Molecular Biology, Keio University School of Medicine[2])

S6-02 09:30-10:00 RNA-directed DNA elimination in Tetrahymena
○Kazufumi Mochizuki (IMBA)

S6-03 10:00-10:30 Widespread evasion of post-transcriptional regulation by tandem UTR shortening associated with proliferative programs
○Joel Neilson[1], Phillip Sharp[1], Rickard Sandberg[2], Christopher Burge[2], Arup Sarma[3] (MIT Center for Cancer Research[1], MIT Department of Biology[2], MIT Department of Computer Science and Engineering[3])

S6-04 10:30-11:00 *Brain tumor* Interacts with *dfmr1* to Regulate Neuromuscular Synapse Development
○Yong Q Zhang (IGDB, CAS)

S6-05 11:00-11:30 A plant germline-specific Argonaute is required for maintenance of germline cell identity and meiosis progression
植物の生殖細胞特異的なアルゴノートは生殖細胞のアイデンティティの維持と減数分裂の進行に必須である
○Ken-Ichi Nonomura[1,2], Mutsuko Nakano[1], Mitsugu Eiguchi[1], Akio Miyao[3], Hirohiko Hirochika[3], Nori Kurata[1,2] (NIG[1], SOKENDAI[2], NIAS[3])

S6-06 11:30-12:00 RNA-binding protein Nanos2 promotes male germ cell development by preventing female genetic program
RNA 結合タンパク質 Nanos2 は生殖細胞の雌化を抑制し雄化を促す
Atsushi Suzuki[2], Rie Saba[1], ○Yumiko Saga[1] (NIG[1], Yokohama National University, IRC[2])

Symposium 7: Stem cell regulation: niche and signaling

Friday, May 30 09:00-12:00 Room C
Chairperson: Miho Asaoka, Toru Nakano

S7-01 09:00-09:35 Hair graying, melanocyte stem cells and their niche
白髪、色素幹細胞とニッチのメカニズム
○Emi Nishimura (Dept. of Stem Cell Medicine, Cancer Research Institute, Kanazawa University)

S7-02 09:35-10:10 Quiescence of Hematopoietic Stem Cells
○Toshio Suda (KEIO UNIV. SCH OF MED)

S7-03 10:10-10:50 Stem Cell niches and niche signaling
○Linheng Li (Stowers Institute)

S7-04 10:50-11:25 Germline-stem-cell-niche formation in Drosophila male gonads
ショウジョウバエ生殖幹細胞ニッチ形成機構の解明
○Yu Kitadate, Satoru Kobayashi (NIBB)

S7-05 11:25-12:00 Germline Stem Cell Formation in the Drosophila ovary
ショウジョウバエ卵巣における生殖幹細胞形成機構
○Miho Asaoka (Dept. of Developmental Genetics, NIG)

Workshop

Workshop 1: Morphogenesis (axis formation, segmentation, etc)

Wednesday, May 28 13:10-17:15 Room A
Organizers: Yoshiko Takahashi (Nara Institute of Science and Technology), Erina Kuranaga (University of Tokyo)

W1-01 13:10-13:25 Coordination of cell polarity during Xenopus gastrulation
アフリカツメガエル原腸形成運動における細胞極性形成
○Asako Shindo, Takamasa Yamamoto, Naoto Ueno (NIBB)

W1-02 13:25-13:40 Ectodermal specification by a novel transcroptional modulator
新規転写調節因子による外胚葉の決定機構
○Noriaki Sasai, Rieko Yakura, Daisuke Kamiya, Yoko Nakazawa, Yoshiki Sasai (RIKEN Ctr. for Dev. Biol.)

W1-03 13:40-13:55 Functional importance and evolutional conservation of Tbx6 binding sites in presomitic mesoderm (PSM) specific enhancer of Mesp2
Mesp2 の PSM 特異的エンハンサーにおける Tbx6 結合サイトの機能的重要性および進化的保存性
○Yukuto Yasuhiko[1], Satoshi Kitajima[1], Yu Takahashi[1], Masayuki Oginuma[2], Harumi Kagiwada[3], Jun Kanno[1], Yumiko Saga[2] (NIHS[1], NIG[2], RICE-AIST[3])

W1-04 13:55-14:10 Emergence of coordinated oscillation in the segmentation clock
分節時計における協調した振動の出現
○Kana Ishimatu, Daisuke Shirakawa, Yutaro Kii, Hiroyuki Takeda (Dept. Biol. Sci, Univ. Tokyo)

W1-05 14:10-14:25 Secondary neurulation: a novel model to study tubulogenesis
神経管形成をモデルとした上皮管構造の成り立ち
○Eisuke Shimokita, Itsuki Kashin, Yoshiko Takahashi (NAIST)

W1-06 14:25-14:40 Imaging analysis of the apical structure of neuroepithelial cells: evidence for hindbrain cytonemes
菱脳神経上皮細胞における cytoneme の存在
○Masanori Takahashi1, Noriko Osumi[1,2] (Div. of Dev. Neurosci., Tohoku Univ. Grad. Sch. of Med.[1], CREST, JST[2])

W1-07 14:40-14:55 Unidirectional sensitivity exists at the PFR to specify digit identity through unique level of SMAD1/5/8 activity
PFR におけるシグナルの一方向性が SMAD1/5/8 活性と供にそれぞれの指の個性の決定に必要である
○Takayuki Suzuki[1,2], Sean M. Hasso[2], John F. Fallon[2], Toshihiko Ogura[1] (IDAC[1], UW-Madison, USA[2])

W1-08 14:55-15:10 Spatiotemporal patterns of caspase activation during *Drosophila* abdominal epithelial morphogenesis revealed by *in vivo* imaging analysis
生体イメージングで解明するショウジョウバエ腹部表皮形成におけるカスパーゼ活性化の時空間的パターン
○Yuichiro Nakajima[1], Erina Kuranaga[1,2], Masayuki Miura[1,2] (Grad. Sch. Pharmaceutical Sci., Univ. Tokyo[1], CREST, JST[2])

Organizers: Koichi Kawakami (National Institute of Genetics),
Atsuo Kawahara (National Cadiovascular Center Research Institute)

W1-09 15:10-15:25 Dorsal determination by a maternal factor Tokkaebi/Syntabulin in zebrafish
○Hideaki Nojima, Masahiko Hibi (RIKEN CDB)

W1-10 15:25-15:40 *Prickle1*, a mouse homolog of a *Drosophila PCP gene*, is essential for the establishment of epiblast polarity during early development
マウス初期胚において *Prickle1* 遺伝子はエピブラストの極性化に必須である
○Hirotaka Tao[1], Takaya Abe[2], Hiroshi Kiyonari[2], Naoto Ueno[1] (Div. for Morphogenesis, NIBB[1], LARGE, RIKEN[2])

W1-11 15:40-15:55 Nonmuscle Myosin II heavy chain, Zipper is required for the left-right asymmetric morphology of the anterior midgut in *Drosophila* embryo
○Takashi Okumura, Hiroo Fujiwara, Kiichiro Taniguchi, Reo Maeda, Syunya Hozumi, Naotaka Nakazawa, Mitsutoshi Nakamura, Haruka Yamamoto, Kenji Matsuno (Dept. Biol. Sci./Tec., Tokyo Univ of Sci,)

W1-12 15:55-16:10 Transition of *Sox2* gene regulation distinguishes epiblastic and anterior neural plate states
胚盤葉上層から神経板への発生の進行を特徴づける Sox2 制御の転換
○Makiko Iwafuchi, Tatsuya Takemoto, Masanori Uchikawa, Yusuke Kamachi, Hisato Kondoh (Dev. Biol. Gr., Grad. Sch. of Frontier Bioscis., Osaka Univ.)

W1-13 16:10-16:25 Functional redundancy of Tcf7 and Lef1, transcription factors mediating the Wnt signaling pathway, during zebrafish fin development
○Gembu Abe, Saori Nagayoshi, Koichi Kawakami (Mol. Dev. Biol., NIG)

W1-14 16:25-16:40 Xenopus ONT1 is a novel secreted pro-BMP factor that restricts Chordin in axial development
新規分泌タンパク質 ONT1 による Chordin を介した Xenopus の体軸形成
○Hidehiko Inomata, Tomoko Haraguchi, Yoshiki Sasai (CDB)

W1-15 16:40-16:55 Secreted Frizzled-related proteins, Frzb1 and Crescent, alter diffusivity of Wnt ligands through extracellular interactions
分泌性 Frizzled 関連蛋白質 Frzb1、Crescent の細胞外相互作用による Wnt 拡散性の変化
○Yusuke Mii, Masanori Taira (Dept. of Biol. Sci., Grad. Sch. of Sci., Univ. of Tokyo)

W1-16 16:55-17:10 Maintenance of genomic methylation during preimplantation development is regulated by the somatic form of DNA methyltransferase 1
Dnmt1s による着床前胚の DNA メチル化維持機構
○Yukiko Kurihara[1], Yumiko Kawamura[1], Yasunobu Uchijima[1], Hiroshi Kobayasi[1], Tomoichiro Asano[2], Hiroki Kurihara[1] (Univ. of Tokyo[1], Hiroshima univ.[2])

Workshop 2: Organogenesis

Wednesday, May 28 13:10-15:10 Room B
Chairperson: Shigeo Hayashi (CDB, RIKEN)

W2-01 13:10-13:25 Microtubule-dependent targeting of E-cadherin in de novo adherence junction formation during epithelial organogenesis
○Kagayaki Kato[1], Housei Wada[1], Shigeo Hayashi[1,2] (RIKEN CDB[1], Dept. biol., Kobe Univ. Grad. School of Sci.[2])

W2-02 13:25-13:40 Analyses of master genes for insect wing development, *vestigial* and *scalloped*, in the water flea, *Daphnia magna* (Crustacea, Cladocera)
昆虫類の翅マスター遺伝子 *vestigial* および *scalloped* のミジンコにおける相同遺伝子の解析
○Yasuhiro Shiga, Yuko Aragane, Takayuki Haraguchi, Hideo Yamagata (Tokyo Univ. Pham. & Life Sci., Sch. of Life Scis.)

W2-03 13:40-13:55 *Xenopus laevis DM-W* on the W-chromosome causes female-specific expression of *Foxl2* and *aromatase* genes in primary ovary formation
ツメガエル W 染色体上の *DM-W* は初期卵巣形成において *Foxl2* とアロマターゼ遺伝子の発現を誘導する
○Shin Yoshimoto[1], Ema Okada[1], Hiromi Kanda[1], Kei Tamura[1], Yoshinobu Uno[2], Chizuko Nishida-Umehara[2], Yoichi Matsuda[2], Tadayoshi Shiba[1], Nobuhiko Takamatsu[1], Michihiko Ito[1] (Dept. Biosci., Sch. Sci., Kitasato Univ.[1], Division of Genome Dynamics, Creative Research Initiative“ Sousei ”, Hokkaido University[2])

W2-04 13:55-14:10 Imaging by high resolution phase contrast X-ray computed micro-tomography reveals 3D structures of developing teeth and brain in zebrafish and medaka
高解像度屈折コントラスト X 線 CT イメージング法によるゼブラフィッシュとメダカの歯と脳の 3D 構造解析
Tamami Yamamoto[1], Keisuke Yoshida[2], Takuto Hashimoto[2], Yasushi Kagoshima[2], Kentaro Uesugi[3], Akihisa Takeuchi[3], Yoshio Suzuki[3], Mariko Itoh[1], Erika Isoda[1], Moly Pricila Khan[1], ○Kohei Hatta[1] (Life Sci, U of Hyogo[1], Material Sci, U of Hyogo[2], JASRI[3])

W2-05 14:10-14:25 Skeletal muscle development in zebrafish
○Haruki Ochi[1,2], Monte Westerfield[2] (NAIST[1], Institute of Neuroscience, University of Oregon[2])

W2-06 14:25-14:40 Characterization of the medaka mutant which displays abnormalities in vertebral body
椎体形成異常を示すメダカ突然変異体の解析
○Satoshi Ohisa[1], Keiji Inohaya, Atsushi Kawakami[1], Yoshiro Takano[2], Akira Kudo[1] (Tokyo, Inst, Tech[1], Section of Biostructural Science, Tokyo Medical and Dental University Graduate School, Tokyo, Japan[2])

W2-07 14:40-14:55 Role of mouse Shh in the prechordal mesendoderm cells during midline specification
マウス正中構造決定過程における Shh の役割
Kazushi Aoto[1], Yayoi Shikata[1], Daisuke Matsumaru[2], Gen Yamada[2], ○Jun Motoyama[1] (RIKEN BSI[1], CARD, Kumamoto-univ[2])

W2-08 14:55-15:10 Chromatin remodeling factors in cardiogenesis
クロマチン再構成複合体と心臓形成
○Jun Takeuchi[1], Kauzko Koshiba[1], Benoit Bruneau[2] (GE, Tokyo-Tech[1], Cardivascular Disease of Gladstone Institute and UCSF[2])

Workshop 3: Neural development & behaviour and neural circuit development

Wednesday, May 28 15:15-17:15 Room B
Chairperson: Testsuya Tabata (University of Tokyo),
Hitoshi Okamoto (RIKEN Brain Science Institute)

W3-01 15:15-15:30 Role of *holm/mosaic eyes*, a Neuroepithelial Polarity Gene in the Migration of Vagus Motor Neuron Precursors
迷走運動神経前駆細胞の移動における神経上皮細胞極性因子 *holm/mosaic eyes* の役割
○Shinya Ohata[1], Kinoshita Shigeharu[1], Tsuruoka Sachiko[1], Tanaka Hideomi[1], Wada Hironori[1], Masai Ichiro[2], Okamoto Hitoshi[1] (Lab. for Developmental Gene Regulation, BSI, RIKEN[1], Developmental Neurobiology Unit, OIST[2])

W3-02 15:30-15:45 Regulation of neurogenesis by zinc-finger genes *Fezf1* and *Fezf2* in forebrain
ジンクフィンガー遺伝子 *Fezf1*, *Fezf2* による前脳神経発生制御機構
Masato Nakazawa[1], Shimizu Takeshi[1], Tsutomu Hirata[1], YOUNG-KI Bae[1], Takashi Shimizu[1], Ryoichiro Kageyama[2], ○Masahiko Hibi[1] (RIKEN CDB[1], Institute for Virus Research, Kyoto Univ.[2])

W3-03 15:45-16:00 *Tbx10* is a useful marker for superior salivatory neurons
○Xiaodong Xue, Keisuke Hikosaka, Wataru Kimura, Naoyuki Miura (HUSM)

W3-04 16:00-16:15 Knot/Collier and Cut Control Different Aspects of Dendrite Cytoskeleton and Synergize to Define Final Arbor Shape

Shiho Jinushi-Nakao, Ramanathan Arvind, Reiko Amikura, Emi Kinameri, Andrew Liu, ○Adrian Moore (RIKEN BSI)

W3-05 16:15-16:30 Developmental changes of nervous system during metamorphosis in the ascidian Ciona intestinalis

カタユウレイボヤ変態過程における中枢神経系の構築過程の解析

○Takeo Horie[1], Nori Satoh[2], Yasunori Sasakura[1] (Shimoda Marine Research Center, University of Tsukuba[1], Department of Zoology, Graduate School of Science, Kyoto University[2])

W3-06 16:30-16:45 Drosophila optic lobe neuroblasts triggered by a wave of proneural gene expression that is negatively regulated by JAK/STAT

○Tetsuo Yasugi, Daiki Umetsu, Satoshi Murakami, Sato Makoto, Tetsuya Tabata (IMCB, Univ. Tokyo)

W3-07 16:45-17:00 Cadherins and vocal learning in songbird

鳥類の発声学習における cadherin 分子群の役割

○Eiji Matsunaga, Kazuo Okanoya (Lab for Biolinguistics, RIKEN BSI)

W3-08 17:00-17:15 Molecular relationship among the responsible genes for ocular malformation

脊椎動物の眼発生における転写因子間相互作用

○Hiroki Danno[1], Tatsuo Michiue[2], Keisuke Hitachi[1], Akira Yukita[1], Shoichi Ishiura[1], Makoto Asashima[1,2,3] (Univ. of Tokyo[1], AIST[2], JST[3])

Workshop 4: Signaling in development

Wednesday, May 28 13:10-15:10 Room C

Chairperson: Masanori Taira (University of Tokyo), Motoyuki Itoh (Nagoya University)

W4-01 13:10-13:25 Characterization of the *Wnt cis*-element in the cnidarian *Hydra* and insight into the origin of axis patterning system

○Yukio Nakamura, Thomas Holstein (Dept. of Molecular Evolution and Genomics, Heidelberg Inst. of Zoology, Univ. of Heidelberg)

W4-02 13:25-13:40 GPCR kinase regulates spatiotemporal pattern of cell movements during *Drosophila* gastrulation.

GPCR キナーゼはショウジョウバエ原腸陥入の細胞運動を時空間レベルで制御している

○Naoyuki Fuse, Susumu Hirose (NIG)

W4-03 13:40-13:55 Jagged-Notch signaling is involved in zebrafish notochord development

Jagged-Notch シグナルによる脊索形態形成制御

Mai Yamamoto[1], Kunihiro Matsumoto[2], Shigenomu Yonemura[3], Koichi Kawakami[4], ○Motoyuki Itoh[1] (IAR, Nagoya Univ.[1], Div. Biol. Sci., Grad. Sch. Sci., Nagoya Univ.[2], RIKEN, CDB[3], NIG[4])

W4-04 13:55-14:10 Nemo-like kinase is a critical mediator of NGF-regulated axonal development

Nemo-like kinase は NGF の制御する神経軸索形成において必須の役割を担う

○Tohru Ishitani[1], Shizuka Ishitani[1], Kunihiro Matsumoto[2] (Div. of Cell Reg. Sys., Med. Ins. of Bioreg., Kyushu Univ.[1], Lab. of Cell Reg., Div. of Biol. Sci., Grad. Sch. of Sci., Nagoya Univ.[2])

W4-05 14:10-14:25 Functional analysis of the RNA binding protein RKHD3 and its 3’ long conserved untranslated region in Xenopus neural development

○Hitomi Takada[1], Hiroshi Mamada[1], Yuzuru Ito[2], Reiko Kikuno[3], Hisashi Koga[3], Makoto Asashima[2], Masanori Taira[1] (Dept. of Biol. Sci, Univ. of Tokyo[1], Dept. of Life Sci, Univ. of Tokyo and ICORP, AIST[2], Kazusa DNA institute[3])

W4-06 14:25-14:40 Semaphorin controls epidermal morphogenesis by stimulating mRNA translation via eIF2α in *C. elegans*
線虫においてセマフォリンは eIF2α を介した翻訳を促進する事により表皮形態形成を制御する

○Akira Nukazuka, Hajime Fujisawa, Toshifumi Inada, Yoichi Oda, Shin Takagi (Nagoya Univ.)

W4-07 14:40-14:55 The role of Shh signaling and FGFs in the mouse molar tooth root development
マウス臼歯歯根形成における Shh と Fgf シグナルの役割

○Masato Ota, Shigeru Okuhara, Sachiko Iseki (TMDU, Grad. Sch., Mol. Craniofacial Emb.)

W4-08 14:55-15:10 Downstream of FGF signaling in the development of mouse lacrimal gland
マウス涙腺発生における FGF シグナル下流の解析

○Masataka Ito[1], Yoshiaki Ueda[2], Yoko Karasawa[2], Yoko Kameda[3], Junko Imaki[1], Noriko Gotoh[4] (Dept. of Develop. Anatomy, NDMC[1], Dept. of Ophthalmol., NDMC[2], Dept. of Anatomy, Kitasato Univ.[3], Div. of Systems Biomed. Technol., IMSUT[4])

Workshop 5: Cell biology of development (growth control, adhesion, migration)

Wednesday, May 28 15:15-17:15 Room C
Chairperson: Fumio Matsuzaki (CDB RIKEN),
Leo Tsuda (National Institute for Longevity Sciences)

W5-01 16:15-16:30 Functional analysis of a novel zebrafish mutant that has defects in the migration of myocardial precursor cells

○Atsuo Kawahara[1,2], Naoki Mochizuki[1] (NCVC Japan[1], HMRO Kyoto Univ. Japan[2])

W5-02 15:30-15:45 The mechanisms of subcellular localization of CyclinD2 mRNA and the protein in the mouse brain primodium
マウス胎生期大脳神経上皮細胞における CyclinD2 mRNA およびタンパク質の細胞内局在機構の解析

○Yuji Tsunekawa[1], Masanori Takahashi[1], Noriko Osumi[1,2] (Dept. of Dev. Neurobiol., Tohoku Univ. Grad. Sch. of Med.[1], CREST, JST[2])

W5-03 15:45-16:00 Dissecting cell competition through a non-cell autonomous genetic screen
細胞非自律的な遺伝学的スクリーニングによる cell competition 機構の解析

○Tatsushi Igaki[1], Tian Xu[2] (Kobe Univ. Grad. Sch. of Med.[1], Yale Univ. Sch. of Med.[2])

W5-04 16:00-16:15 In vivo and In vitro analyses of neural crest migration
神経提細胞移動のメカニズム

○Sei Kuriyama[1], Helen Matthews[1], Lorena Marchant[1], Carlos Carmona-Fontaine[1], Juan Larrain[2], Mark Holt[3], Maddy Parsons[3], Roberto Mayor[1] (UCL[1], UC[2], KCL[3])

W5-05 15:15-15:30 Nuclear localization of PTEN is involved in cell cycle elongation after MBT in *Xenopus* embryos

○Shuichi Ueno, Yasuhiro Iwao (Mol. Dev. Biol., Applied Mol. BioSci., Yamaguchi Univ.)

W5-06 16:30-16:45 FoxM1-driven cell division is required for neuronal differentiation in early Xenopus embryos
FoxM1 に依存した細胞分裂はツメガエル初期胚の神経分化に必要である
○Hiroyuki Ueno[1], Nobushige Nakajo[1], Minoru Watanabe[2], Michitaka Isoda[1], Noriyuki Sagata[1] (Department of Biology, Graduate School of Sciences, Kyushu University[1], Faculty of Integrated Arts and Sciences, The University of Tokushima[2])

W5-07 16:45-17:00 Comprehensive analysis of the interkinetic nuclear migration in developing mouse brain
○Yoichi Kosodo[1], Akatsuki Kimura[2], Taeko Suetsugu[1], Shoji A. Baba[3], Fumio Matsuzaki[1] (RIKEN CDB[1], NIG[2], Ochanomizu Univ.[3])

W5-08 17:00-17:15 Laminin regulates the interkinetic nuclear migration in neuroepithelial cells
神経管での interkinetic nuclear migration に、Laminin が必要である
○Sachiko Tsuda, Hiroyuki Takeda (Grad. School of Science, Dep. of Biological Sciences, Univ. of Tokyo)

Workshop 6: Reproduction & gametology

Friday, May 30 13:10-15:10 Room A
Chairperson: Gen Yamada (Kumamoto University),
Yoshiakira Kanai (University of Tokyo)

W6-00 13:10-13:15 Foreword
Gen Yamada (Kumamoto University, CARD)

W6-01 13:15-13:40 Urothelial trans-differentiation to prostate epithelia is mediated by paracrine TGF-β signaling
Xiaohong Li, Simon W. Hayward, ○Neil A. Bhowmick (Department of Urologic Surgery, Vanderbilt University Nashville TN, USA)

W6-02 13:40-14:05 Function of androgen receptor in prostate cancer development
○Shigeaki Kato[1,2] (Institute of Molecular and Cellular Biosciences, The University of Tokyo[1], ERATO, Japan Science and Technology Agency[2])

W6-03 14:05-14:25 Potentiality of creating gametes from ES cells in culture
培養下における ES 細胞からの配偶子形成の可能性
○Toshiaki Nose (MITILS)

W6-04 14:25-14:45 Abnormal epithelial cell polarity and migration of Emx2 KO embryonic gonads induced by ectopic EGFR expression
Masatomo Kusaka, ○Yuko Katoh-Fukui, Hidesato Ogawa, Kanako Miyabayashi, Takashi Baba, Noriyuki Sugiyama, Yukihiko Sugimoto, Yasushi Okuno, Ryuji Kodama, Akiko Iizuka-Kogo, Takao Senda, Shinichi Aizawa, Ken-ichirou Morohashi (Division for sex differentiation, National institute for Basic Biology, National Institutes of Natural Sciences)

W6-05 14:45-15:05 A critical time window of Sry action in gonadal sex determination
哺乳類の性分化の SRY 下流の分子メカニズム
Ryuji Hiramatsu, Shogo Matoba, ○Yoshiakira Kanai (Vet Anat, Univ. of Tokyo)

W6-06 15:05-15:10 Concluding remark
Yoshiakira Kanai (University of Tokyo)

Workshop 7: Evolution and deveropment

Friday, May 30 13:10-15:10 Room B
Chairperson: Kenji Matsuno (Tokyo University of Science)

W7-01 13:10-13:25 Radiata evolved from Bilateria? : Directed locomotion of sea anemone
放射相称動物は左右相称動物から進化した？：イソギンチャクの一定方向への移動現象
○Hiroshi Shimizu[1], Setsuro Kobayashi[2], Hiroshi Namikawa[3] (NIG[1], Mishima Kita High School[2], Showa Memorial Institute, National Museum of Nature and Science[3])

W7-02 13:25-13:40 Protein evolution of the LIM-homeodomain transcription factors Lhx1 and Lhx3 in acquisition of the vertebrate gastrula organizer
脊椎動物原腸胚オーガナイザーの獲得における LIM ホメオドメイン転写因子 Lhx1 と Lhx3 の蛋白質進化
○Yuuri Yasuoka[1], Masaaki Kobayashi[2], Daisuke Kurokawa[3], Koji Akasaka[3], Hidetoshi Saiga[2], Masanori Taira[1] (Dept. of Biol. Sci., Grad. Sch. of Sci., Univ. of Tokyo[1], Dept. of Biol. Sci., Grad. Sch. of Sci., Tokyo Metropolitan Univ.[2], MMBS, Grad. Sch. of Sci., Univ. of Tokyo[3])

W7-03 13:40-13:55 Molecular analysis of morphogenesis of segmented structure in feather stars (echinoderm)
ウミシダ（棘皮動物）における分節構造形成過程の分子的解析
○Tomoko F. Shibata[1], Yumiko Saga[2], Koji Akasaka[1] (MMBS, Tokyo Univ.[1], National Institute of Genetics[2])

W7-04 13:55-14:10 Chordin, Dkk3 and Hex are required for the forebrain development in *Amphioxus* embryos
○Takayuki Onai[1], Ira Blitz[2], Ken W Cho[2], Linda Z Holland[1] (UCSD[1], UCI[2])

W7-05 14:10-14:25 Distinct modifications of EGF receptor signaling in the homoplastic evolution of eggshell morphology in genus Drosophila
ショウジョウバエ卵殻形態のホモプラシーは発生機構の異なった変化に起因する
○Tatsuo Kagesawa, Yukio Nakamura, Minori Nishikawa, Kenji Matsuno (Dept. of Biol. Sci. & Technol., Tokyo Univ. of Sci.)

W7-06 14:25-14:40 Evolutionary developmental (evo-devo) study of the mammalian middle ear
哺乳類の中耳の形態進化を分子発生学的に理解する
○Masaki Takechi, Shigeru Kuratani (RIKEN CDB)

W7-07 14:40-14:55 Comparative genomic analysis of the cellular slime moulds to reveal how cell differentiation was established during evolution
細胞性粘菌を用いた細胞分化成立過程の比較ゲノム解析
○Hidekazu Kuwayama[1], Ryuji Yoshino[1], Hiroshi Kagoshima[2], Tadasu SHIN-I[2], Kazuko Oishi[2], Takehiko Itoh[3], Takeaki Taniguchi[3], Kyoko Uchi[1], Yoko Kuroki[4], Yuji Kohara[4], Asao Fujiyama[5], Hideko Urushihara[1] (Univ. of Tsukuba, Life and Environmental Scicences[1], Nat. Inst. Genet.[2], Mitsubishi Res. Inst.[3], RIKEN Yokohama Inst.[4], Nat. Inst. Info.[5])

W7-08 14:55-15:10 Towards a pan-genome atlas of transcription factor DNA-binding specificity in *Ciona intestinalis*
Renaud Vincentelli[2,4], ○Kazuhiro Nitta[1,4], Agnes Mistral[2], Atsushi Kubo[3], Yutaka Satou[3], Christian Cambillau[2], Patrick Lemaire[1] (IBDML-UMR 6216[1], AFMB-UMR CNRS 6098[2], Zoology department, Graduate School of Science, Kyoto Universtity[3], Equal contributors[4])

Workshop 8: Stem cells and pluripotency, regeneration

Friday, May 30 13:10-15:10 Room C
Chairperson: Shoen Kume (Kumamoto University),
Kunimasa Ohota (Kumamoto University)

W8-01 13:10-13:25 Tsukushi is a Frizzled4 ligand that, in competition with Wnt2b, regulates the proliferation of retinal stem/progenitor cells
Tsukushi は網膜幹 / 前駆細胞の増殖を制御する Wnt シグナル阻害因子である
○Kunimasa Ohta[1], Ayako Ito[1,2], Sei Kuriyama[1], Rika Nakayama[3], Naoko Oshima[3], Mitsuko Kosaka[3], Shinichi Ohnuma[4], Shinichi Nakagawa[5], Hideaki Tanaka[1,2] (Dept. of Dev. Neurobiol., Kumamoto Univ. Grad. Sch. of Med. Scis.[1], Kumamoto Univ., Global COE, Kumamoto, Japan[2], RIKEN CDB, Kobe, Japan[3], Univ. of Cambridge, Cambridge, UK[4], RIKEN FRS, Wako, Japan[5])

W8-02 13:25-13:40 Reactivation of SHH signaling is a key to anterior-posterior (AP) repatterning during *Xenopus* froglet limb regeneration
○Nayuta Yakushiji[1], Tomoko Sagai[2], Toshihiko Shiroishi[2], Hisato Kobayashi[3,4], Hiroyuki Sasaki[3,4], Hiroyuki Ide[1], Koji Tamura[1] (Grad. Life Sci., Tohoku Univ[1], Mammalian Genetics Laboratory, Nat'l Inst. of Genetics[2], Division of Human Genetics, Nat'l Inst. of Genetics[3], SOKENDAI[4])

W8-03 13:40-13:55 Gene Expression and Functional Analysis of Zebrafish Larval Fin-Fold Regeneration
ゼブラフィッシュ正中膜ひれ再生における遺伝子プロファイリングと関連分子機能の解析
Takashi Ishida, Nozomi Yoshinari, Akira Kudo, ○Atsushi Kawakami (Tokyo Tech.)

W8-04 13:55-14:10 Guided differentiation of ES cells into Pdx1-expressing regional specific definitive endoderm
ES 細胞から Pdx1 陽性胚性内胚葉への正常発生に沿った分化誘導
○Nobuaki Shiraki[1], Tetsu Yoshida[1], Kimi Araki[2], Akihiro Umezawa[3], Yuichiro Higuchi[1], Hideo Goto[1], Kazuhiko Kume[1], Shoen Kume[1] (Div. of Stem Cell Biol. IMEG, Kumamoto Univ.[1], Div. Developmental Genetics, IMEG, Kumamoto Univ.[2], Natl. Inst. Child Health Dev., Rep. Biol.[3])

W8-05 14:10-14:25 Mechanism of differentiation of skeletal muscle into fast and slow muscles
骨格筋の速筋と遅筋への分化の機構
Yoshikazu Matsoka, ○Akio Inoue (Dept. Biol. Grad. Sch. Dci. Osaka Univ.)

W8-06 14:25-14:40 Specification of fusion-competent areas of plasma membrane in myogenic cells
筋前駆細胞における融合能を有する細胞膜領域の形成
Atsushi Mukai, ○Naohiro Hashimoto (Dept Reg Med, NISL, NCGG)

W8-07 14:40-14:55 Inhibition of myogenesis and myogenin promoter activity by mutated ALK2 found in a heritable human disease
ヒト遺伝性疾患に見いだされた ALK2 変異体による筋分化および myogenin プロモーターの活性抑制
○Michiko Yanagisawa, Naohiro Hashimoto (Dept Reg Med, NILS, NCGG)

市民公開講座

発生生物学から見た生物の世界

第 41 回日本発生生物学会年大会では，次世代の生命科学研究を担う中学・高校生や，生物や生き物の不思議に興味のある一般の方々を対象とした公開講座を開催いたします。

基礎的研究から応用研究まで，生物学研究の世界について分かりやすく紹介し，研究の魅力をお伝えいたします。参加は無料です。たくさんの方のご来場をお待ちしております。

日時：平成 20 年 5 月 31 日 (土)　13:00 〜 16:00
会場：徳島県郷土文化会館 1 階ホール
世話人：渡部　稔 (徳島大学総合科学部)
後援：徳島県教育委員会，徳島市教育委員会，NHK 徳島放送局，徳島新聞社
参加料：無料 (事前参加登録の必要はありません。当日ご自由にご参加ください)

1. サカナの異常から見えてくる人の病気
　平田 普三 (名古屋大学大学院理学研究科)

サカナと人間は外見は違うけれど，同じ脊椎動物であり，循環器系，消化器系，神経系，運動系など多くの部分で共通のシステムをもっています。熱帯魚として親しまれているゼブラフィッシュは生物学研究に有用で，遺伝病をもつもの (変異体) が多数あります。中には見た目には正常だけれど，運動機能に異常のあるものもあり，研究により神経や筋の異常が見つかります。これらの異常は人の遺伝性の神経疾患や筋疾患と同じものであり，サカナの研究から人の難病が見えてくるのです。

2. シマウマはなぜ縞を持っているのか？
　近藤 滋 (名古屋大学大学院理学研究科)

動物には，きれいな模様を持っているものがたくさんいますが，なぜだと思いますか？　例えばシマウマの縞模様。どう見ても目立ちすぎです。あれじゃ，ライオンに直ぐに見つかってしまいます。「縞模様は目くらましになる！」という説明もあるのですが，野生を紹介するＴＶを見ている限りでは，役に立っているようには見えません。では，どうやって縞模様は進化してきたのでしょう？　さて，ここで天才数学者チューリングが登場します。彼は 1952 年に「動物の皮膚模様は波である」という驚くべき仮説を出しました。そして 50 年後，皮膚模様が本当に「波」であることが証明されました。チューリングの理論を使えば，シマウマがなぜ縞模様を持っているのかがわかります。そのアッと驚く答えは…… 会場で。

3. クロマグロ完全養殖への挑戦
　熊井 英水 (近畿大学水産研究所)

日本人が利用しているマグロは 5 種あり，中でもクロマグロは海のダイヤとも呼ばれ，大きさ，味覚，市場価格共に最高位を誇る。しかしマグロ類中での漁獲割合は僅か 1.8% にすぎない。

私共はこの貴重で希少な本種に注目して 1970 年から増養殖の研究を開始した。本種は酸素要求量が大きく，皮膚が脆弱で稚魚期には共喰が激しく光や音などの刺戟に敏感で，その上濁水にも弱く，飼育の極めて困難な魚種である。私共はこれらの困難を克服して 1979 年初めて生簀内での産卵に成功し，2002 年 6 月には実に 32 年の歳月を要したが，世界で初めて本種の「完全養殖」に成功した。さらに 2007 年 6 月にはこの完全養殖から生まれた子供が 5 年経ち親魚となって産卵を開始し，人工ふ化クロマグロ第 3 世代が誕生した。