



Research Organization of Information and Systems
National Institute of Genetics

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No.63
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ANNUAL REPORT

情報・システム研究機構
国立遺伝学研究所
年報

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Research Organization of Information and Systems
NATIONAL INSTITUTE OF GENETICS

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Introduction

The National Institute of Genetics (NIG) was established in 1949 as the central institute to study various aspects of genetics. It was reorganized in 1984 as an inter-university research institute to promote collaborations with researchers at universities. Since 1988, NIG has been participating in graduate education as the Department of Genetics of the Graduate University for Advanced Studies (SOKENDAI). NIG also serves as a center for various genetic resources such as mutant strains, clones and vectors, and houses DDBJ, the DNA Data Bank of Japan, and a DNA sequencing center.

The history of NIG overlaps the period of a revolution in the field of Genetics. Genetics is no longer a discipline to study the rules and mechanisms of heredity, but has become the basis for all fields of life science. Molecular techniques now allow us not only to decipher the entire genome sequence of organisms including humans, but also to understand the details of higher biological phenomena: cell differentiation, morphogenesis, brain function, and evolution --- the history of life itself. Currently, 39 research groups are actively performing pioneering and cutting-edge researches in these fields at NIG.

Recent generation of massive information on biological systems and their environment calls for new directions in life sciences, such as bioinformatics, system-level analysis, and theoretical approaches to extract knowledge from databases. In particular, so-called the next generation DNA sequencing technology will revolutionize a wide range of life science. To this end NIG sets up the facilities for the high-throughput DNA sequencing and massive data analysis, which are used for collaborations in the research community. NIG has collected and developed various bioresources(mouse, rice etc.) from wild population for long time, which are now excellent targets in the new genome era to understand the mechanisms and its evolution and diversity of life.

We would appreciate your continuous support and encouragement to NIG, and welcome your comments and suggestions on our research activities and endeavors.

Yuji Kohara, Director-General

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Vice-Director

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KURATA, Nori, D. Ag., Professor

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NISHINO, Tatsuya, D. Med., Assistant Professor

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Molecular Mechanism Laboratory

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AKAMATSU, Yufuko, D. Sc., Assistant Professor

Division of Microbial Genetics

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HIZUME, Kohji, D. Sc., Assistant Professor

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Division of Population Genetics

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Division of Evolutionary Genetics

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5. Department of Integrated Genetics

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Division of Agricultural Genetics

KAKUTANI, Tetsuji, D. Sc., Professor

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TARUTANI, Yoshiaki, D. Agr., Assistant Professor

Division of Brain Function

HIRATA, Tatsumi, D. Med., Associate Professor

KAWASAKI, Takahiko, D. Sc., Assistant Professor

6. Adjunct Faculty

Nucleic Acid Chemistry

EARNSHAW, William C., Principal Research Fellow of the Wellcome Trust, Professor of Chromosome Dynamics, The University of Edinburgh

MARKO, John F., Professor, Department of Molecular Biosciences and Physics & Astronomy, Northwestern University, Evanston IL

Cytoplasmic Genetics

BOCCARD, Frederic., Directeur de recherche, Centre de Genetique Moleculaire du CNRS

UEDA, Hiroki., Project Leader, RIKEN Center for Developmental Biology

Physiological Genetics

STERN, David L., Professor, Princeton University

FURLONG, Eileen., Joint Head of Unit and Senior Scientist, EMBL

Theoretical Genetics

von HAESELER, Arndt., Scientific Director of the Center for Integrative Bioinformatics Vienna

CLARK, Andrew G., Professor, Cornell University

Applied Genetics

MARTIENSSEN, Rob A., Howard Hughes Medical Institute, Cold Spring Harbor Laboratory

TSUJI, Shoji., Professor, The University of Tokyo Hospital

7. Center for Frontier Research

HIROMI, Yasushi, D. Sc., Head of the Center

Molecular Function Laboratory

KANEMAKI, Masato, D. Sc., Associate Professor

Multicellular Society Laboratory

HORIKAWA, Kazuki, D. Sc., Associate Professor

Motor Neural Circuit Laboratory

HIRATA, Hiromi, D. Sc., Associate Professor

Symbiosis and Cell Evolution Laboratory

MIYAGISHIMA, Shin-ya, D. Sc., Project Associate Professor

Ecological Genetics Laboratory

KITANO, Jun, D. Med., Project Associate Professor

Centrosome Biology Laboratory

KITAGAWA, Daiju, D. Pha., Project Associate Professor

8. Genetics Strains Research Center

SHIROISHI, Toshihiko, D. Sc., Head of the Center

Mammalian Genetics Laboratory

SHIROISHI, Toshihiko, D. Sc., Professor

TAMURA, Masaru, D. Sc., Assistant Professor

TAKADA, Toyoyuki, D. Ag., Assistant Professor

Mammalian Development Laboratory

SAGA, Yumiko, D. Sc., Professor

MORIMOTO, Mitsuru, D. Sc., Assistant Professor

Mouse Genomics Resource Laboratory

KOIDE, Tsuyoshi, Ph.D., Associate Professor

TAKAHASHI, Aki, D. Sc., Assistant Professor

Model Fish Genomics Resource Laboratory

SAKAI, Noriyoshi, Ph. D., Associate Professor

SHINYA, Minori, D. Sc., Assistant Professor

Plant Genetics Laboratory

KURATA, Nori, D. Ag., Professor

KUBO, Takahiko, D. Ag., Assistant Professor

Microbial Genetics Laboratory

NIKI, Hironori, D. Med., Professor

AOKI, Keita, D. Sc., Assistant Professor

Invertebrate Genetics Laboratory

UEDA, Ryu, D. Sc., Professor

KONDO, Shu, D. Sc., Assistant Professor

Genetic Informatics Laboratory

YAMAZAKI, Yukiko, D. Sc., Associate Professor

Genome Biology Laboratory

KOHARA, Yuji, D. Sc., Professor

ADACHI, Yoshiki, D. Sc., Assistant Professor

9. Structural Biology Center

ARAKI, Hiroyuki, D. Sc., Head of the Center

Biological Macromolecules Laboratory

MAESHIMA, Kazuhiro, D. Med., Professor

HIRATANI, Ichiro, D. Sci., Assistant Professor

Cell Architecture Laboratory

KIMURA, Akatsuki, D.Sc., Associate Professor

Multicellular Organization Laboratory

SAWA, Hitoshi, D. Sci., Professor

IHARA, Shinji, D. Sci., Assistant Professor

Biomolecular Structure Laboratory

SHIRAKIHARA, Yasuo, D. Sc., Associate Professor

ITO, Hiroshi, D. Sc., Assistant Professor

Gene Network Laboratory

SUZUKI, Emiko, D. Med., Associate Professor

KURUSU, Mitsuhiko, D. Sc., Assistant Professor

10. Center for Information Biology

OKUBO, Kousaku, M. D. Ph. D., Professor., Head of the Center

Laboratory for DNA Data Analysis

GOJOBORI, Takashi, D. Sc., Professor

IKEO, Kazuho, D. Sc., Associate Professor

NOZAWA, Masafumi, D. Sc., Assistant Professor

Genome Informatics Laboratory

NAKAMURA, Yasukazu, D. Sc., Professor

KAMINUMA, Eli, D. Eng., Assistant Professor
Laboratory for Research and Development of Biological Databases
TAKAGI, Toshihisa, D. Sc., Professor
Laboratory for Gene-Expression Analysis
OKUBO, Kousaku, D. Med., Professor
OGASAWARA, Osamu, D. Sc., Assistant Professor
Comparative Genomics Laboratory
FUJIYAMA, Asao, D. Sc., Professor
TOYODA, Atsushi, D. Sc., Project Associate Professor

11. Experimental Farm

NONOMURA, Ken-ichi, D. Ag., Associate Professor / Head of the Farm
MIYAZAKI, Saori, D. Agr., Assistant Professor

12. Radioisotope Center

NIKI, Hironori, D. Med., Head of the Center

13. Intellectual Property Unit

SUZUKI, Mutsuaki, D. Pharm., Director

14. Technical Section

KURATA, Nori, Deputy Chief of the Section
YATA, Katsunori, Assistant Chief of the Section

15. Department of Administration

NODA, Kiyoshi, General Manager of the Department
MATSUNAGA, Shigeru, Manager of the Research Promotion Section
TOMIZAWA, Hiroshi, Manager of the Management Project Section

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Advisory committee

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KONDO, Shigeru; Professor, Graduate school of Frontier Biosciences, Osaka University

NAKAMURA, Haruki; Professor, Institute for Protein Research, Osaka University

NISHIDA, Eisuke; Professor, Graduate school of Biostudies, Kyoto University

OGAWA, Tomoko; Vice-Director, Iwate College of Nursing

OKADA, Norihiro; Distinguished Professor, Tokyo Institute of Technology school and Graduate school of Bioscience and Biotechnology

OSUMI, Noriko; Professor, Graduate School of Medicine, Tohoku University

SHINOZAKI, Kazuo; Director, Plant Science Center, RIKEN

SUGANO, Sumio; Professor, Graduate School of Frontier Sciences, The University of Tokyo

TACHIDA, Hidenori; Professor, Faculty of Sciences, Kyusyu University

Inside Members (Alphabetical order)

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NIKI, Hironori; Head, Radioisotope Center

KAKUTANI, Tetsuji; Head, Department of Integrated Genetics

KAWAKAMI, Koichi; Head, Department of Developmental Genetics

OKUBO, Kousaku; Head, Center for Information Biology

SAITOU, Naruya; Head, Department of Population Genetics

SHIROISHI, Toshihiko; Head, Genetic Strains Research Center

YAMAO, Fumiaki; Head, Department of Molecular Genetics

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ADVISORY BOARD

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SULSTON, John; Chair, Institute for Science, Ethics and Innovation, The University of Manchester

TAKEICHI, Masatoshi; Director, Center for Developmental Biology, RIKEN

WIESCHAUS, Eric; Professor, Princeton University

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Research Outline

Code	Division/Laboratory	Group name
A-a	Division of Molecular Genetics	Tatsuo Fukagawa
A-b	Division of Mutagenesis	Fumiaki Yamao
A-c	Molecular Mechanism Laboratory	Hiroaki Seino
B-a	Division of Cytogenetics	Takehiko Kobayashi
B-b	Division of Microbial Genetics	Hiroyuki Araki
C-a	Division of Developmental Genetics	Yasushi Hiromi
C-a	Division of Developmental Genetics	Hiroshi Shimizu
C-b	Division of Neurogenetics	Takuji Iwasato
C-c	Division of Molecular and Developmental Biology	Koichi Kawakami
D-a	Division of Population Genetics	Naruya Saitou
D-b	Evolutionary Genetics	Hiroshi Akashi
E-b	Division of Agricultural Genetics	Tetsuji Kakutani
E-c	Division of Brain Function	Tatsumi Hirata
E-e	Division of Human Genetics	Itsuro Inoue
F-a	Mammalian Genetics Laboratory	Toshihiko Shiroishi
F-b	Mammalian Development Laboratory	Yumiko Saga
F-c	Mouse Genomics Resource Laboratory	Tsuyoshi Koide
F-d	Model Fish Genomics Resource	Noriyoshi Sakai
F-e	Plant Genetics Laboratory	Nori Kurata
F-f	Microbial Genetics Laboratory	Hironori Niki
F-g	Invertebrate Genetics Laboratory	Ryu Ueda
G-a	Genetic Informatics Laboratory	Yukiko Yamazaki
G-b	Genome biology Laboratory	Yuji Kohara
G-c	Comparative Genomics Laboratory	Asao Fujiyama
H-a	Biological Macromolecules	Kazuhiro Maeshima
H-d	Biomolecular Structure Laboratory	Yasuo Shirakihara
H-e	Gene Network Laboratory	Emiko Suzuki
H-f	Multicellular Organization Laboratory	Hitoshi Sawa
I-a	Laboratory for DNA Data Analysis	Takashi Gojobori
I-b	Laboratory for Gene-Product Informatics	Yasukazu Nakamura
I-d	Laboratory for Research and Development of Biological Databases	Toshihisa Takagi
I-e	Laboratory for Gene-Expression Analysis	Kousaku Okubo
J-c	Cell Architecture Laboratory	Kimura Akatsuki
J-d	Motor Neural Circuit Laboratory	Hiromi Hirata
J-e	Molecular Function Laboratory	Masato Kanemaki

J-f	Multicellular Society Laboratory	Kazuki Horikawa
J-g	Symbiosis and cell evolution laboratory	Shinya Miyagishima
J-h	Ecological Genetics Laboratory	Jun Kitano
J-i	Centrosome Biology Laboratory	Daiju Kitagawa
K	RADIOISOTOPE CENTER	RADIOISOTOPE CENTER
L	EXPERIMENTAL FARM	EXPERIMENTAL FARM
M	Intellectual Property Unit	Intellectual Property Unit
N	Technical Section	Technical Section

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A. DEPARTMENT OF MOLECULAR GENETICS

A-a. Division of Molecular Genetics

A. DEPARTMENT OF MOLECULAR GENETICS

A-a. Division of Molecular Genetics

Tatsuo Fukagawa

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Krasikova A, Fukagawa T, Zlotina A (2012) High-resolution mapping and transcriptional activity analysis of chicken centromere sequences on giant lampbrush chromosomes. , **Chromosome Res.** , 20 , 995 - 1008
- 2 . Nishimura, K., Ishiai, M., Horikawa, K., Fukagawa, T., Takata, M., Takisawa, H., and Kanemaki, T.M (2012) Mcm8 and Mcm9 Form a Complex that Functions in Homologous Recombination Repair Induced by DNA Interstrand Crosslinks , **Mol. Cell** , 47 , 511 - 522
- 3 . Hori, T., and Fukagawa, T. (2012) Establishment of the vertebrate kinetochores , **Chromosome Res.** , 20 , 547 - 561
- 4 . Fukagawa, T. (2012) Formation of a centromeric-specific chromatin structure , **Epigenetics** , 7 , 672 - 675
- 5 . Maruyama, E.O., Hori, T., Tanabe, H., Kitamura, H., Matsuda, R., Tone, S., Hozak, P., Habermann, F.A., Hase, J.V., Cremer, C., Fukagawa, T., and Harata, M. (2012) The actin family member Arp6 and the histone variant H2A.Z are required for spatial positioning of chromatin in chicken cell nuclei , **J. Cell Sci.** , 125 , 3739 - 3743
- 6 . Takeuchi, K., and Fukagawa, T. (2012) Molecular architecture of vertebrate kinetochores , **Exp. Cell Res** , 318 , 1367 - 1374
- 7 . Nishino, T., Takeuchi, K., Gascoigne, K.E., Suzuki, A., Hori, T., Oyama, T., Morikawa, K., Cheeseman, I.M, and Fukagawa T. (2012) CENP-T-W-S-X Forms a Unique Centromeric Chromatin Structure with a Histone-like Fold , **Cell** , 148 , 487 - 501
- 8 . 西野達哉, 深川竜郎 (2012) セントロメア領域に特異的なクロマチン構造 , 遺伝 , 66 , 552 - 558

ORAL PRESENTATION

- 1 . 西野達哉、深川竜郎 真核生物キネトコア複合体 CENP-T 天然変性領域の構造生物学的解析 IDP計算分科会天然変性蛋白質計算科学セミナー 御殿場高原 時之栖 10/30~11/1
- 2 . 西野達哉、深川竜郎 次世代放射光源ERLと構造生物学 蛋白研セミナー 大阪大学蛋白質研究所 9/20~21
- 3 . 深川竜郎 高等動物におけるキネトコア形成機構 千葉県がんセンターセミナー 千葉研がんセンター研究所 7/4
- 4 . 深川竜郎 高等動物におけるキネトコア形成機構 北海道大学生命科学セミナー 北海道大学 4/14

POSTER PRESENTATIONS

1. 深川竜郎「エピジェネティクスに規定されるセントロメアの形成機構」, 第6回日本エピジェネティクス研究会年会, 東京都, 5/14~15
2. 深川竜郎「動原体形成における構造エピゲノム」, 構造エピゲノム研究会 第6回ワークショップ, 横浜市, 3/7
3. 深川竜郎「Kinetochore specification and assembly in vertebrate cells」, 日本遺伝学会第84回大会, 福岡市, 9/24~26
4. 深川竜郎「Kinetochore structure, which ensures for accurate chromosome segregation」, 第71回日本癌学会学術総会, 札幌, 9/19~21
5. 西野達哉、深川竜郎「Structural cell biology of chromosome segregation machinery」, 第71回日本癌学会学術総会, 札幌, 9/19~21
6. Hori, T., Shang, W.H., Fukagawa, T. 「Molecular architecture of vertebrate kinetochores」, Cold Spring Harbor Laboratory meeting, New York, 5/15~19
7. Fukagawa, T. 「Chromosome engineering to understand molecular architecture of vertebrate kinetochores」, The 8th 3R Symposium, Awaji, 11/25~28
8. Fukagawa, T. 「Structural Dynamics of a Key Interface with Spindle Microtubules」, The 2nd International Workshop on Structural Epigenomics, yokohama, 10/10
9. Fukagawa, T. 「Molecular architecture of vertebrate kinetochores」, EMBO Workshop, Barcelona, 10/1~5
10. Hori, T., Shang, W.H., Fukagawa, T. 「Ectopic Localization of CCAN proteins induces centromere formation in vertebrate cells」, EMBO Workshop, Barcelona, 10/1~5
11. Takeuchi, K., Nishino, T., Mayanagi, K., Horikoshi, N., Osakabe, A., Tachiwana, H., Hori, T., Kurumizaka, H., Fukagawa, T. 「The Histone-fold CENP-T-W-S-X complex induces positive supercoils into DNA」, ASCB, San Francisco, 12/15~19
12. 西野達哉, 竹内康造, Keren Gascoigne, 鈴木應志, 堀哲也, 大山拓治, 森川耿右, Iain Cheeseman, 深川竜郎「新規セントロメア特異的ヒストン様複合体 CENP-TWSX の構造機能解析」, 第12回日本蛋白質科学会年会, 名古屋市, 6/20~22
13. Nishino, T. and Fukagawa, T. 「New histone complex at eukaryotic centromere: CENP-T-W-S-X forms a unique chromatin structure」, Jacques Monod Conferences, Roscoff, 9/5~9
14. 堀哲也, Wei-Hao Shang, 竹内康造, 深川竜郎「人工動原体の作出からあきらかになるセントロメアの形成メカニズム」, 第35回日本分子生物学会年会, 福岡市, 12/11~14
15. 西村浩平, 石合正道, 堀川一樹, 深川竜郎, 高田譲, 滝澤温彦, 鐘巻将人「Mcm8とMcm9は複合体を形成し、DNA二本鎖架橋修復時に引き起こされる相同組換え修復において働く」, 第35回日本分子生物学会年会, 福岡市, 12/11~14
16. 石黒啓一郎, 金恵慧, 澁谷大輝, Hernandez, Abraham, 鈴木應志, Schimenti, John, 深川竜郎, Hoog Christer, 渡邊嘉典「減数分裂特異的コヒーシ複合体のDSB非依存的な相同染色体ペアリングにおける役割」, 第35回日本分子生物学会年会, 福岡市, 12/11~14
17. 西野達哉, 深川竜郎「Structural biology of eukaryotic chromosome segregation machineries」, 第85回日本生化学会大会, 福岡市, 12/14~16
18. 越阪部晃永, 立和名博昭, 高久誉大, 堀哲也, 小布施力史, 木村宏, 深川竜郎, 胡桃坂仁志「新規ヒストン相互作用因子hsSpt2の核小体クロマチンダイナミクスにおける機能」, 第85回日本生化学会大会, 福岡市, 12/14~16
19. 西野達哉, 竹内康造, Karen Gascoigne, 鈴木應志, 堀哲也, 大山拓治, 森川耿右, Iain Cheeseman, 深川竜郎「真核生物キネトコア構成因子CENP-TWSX複合体の構造と機能」, 第29回染色体ワークショップ, 仙台市, 1/25~26
20. 竹内康造, 西野達哉, 堀哲也, 立和名博昭, 越阪部晃永, 胡桃坂仁志, 深川竜郎「セントロメアに特異的なCENP-T-W-S-Xヒストンフォールド複合体は正のスーパーコイルを導入する活性を持つ」, 第29回染色体ワークショップ, 仙台市, 1/25~26
21. 堀哲也, Wei-Hao Shang, 竹内康造, 深川竜郎「遺伝学的改変による人工セントロメアの創出」, 第29回染色体ワークショップ, 仙台市, 1/25~26
22. Kagawa, N., Hori, T., Hoki, Y., Sado, T., Fukagawa, T. 「Functional analyses of the CENP-O complex in mice」, 第29回染色体ワークショップ, 仙台市, 1/25~26
23. Perpelescu, M., Hori, T., Fukagawa, T. 「CENTROMERE CHROMATIN REMODELING - A COOPERATIVE WORK」, 第29回染色体ワークショップ, 仙台市, 1/25~26
24. Wei-Hao Shang, Hori, T., Toyoda, A., Fujiyama, A., Ikeno, K., Fukagawa, T. 「Experimental creation of neocentromeres in chicken DT40 cells」, 第29回染色体ワークショップ

ップ，仙台市，1/25~26

EDUCATION

1．深川竜郎, 胡桃坂仁志　平成24年度遺伝研研究集会　三島

OTHERS

- 1．西野達哉・深川竜郎，3，First Author's (ライフサイエンス新着レビュー) 掲載 セントロメアにおける新しいヒストン様の構造
- 2．深川竜郎，3，錦田中学出前授業
- 3．深川竜郎，3，静岡県立大学にて講義
- 4．深川竜郎，3，Nature Digestでの紹介 (記事あり)
- 5．深川竜郎，1，日本細胞生物学会評議員
- 6．西野達哉，1，第12回日本蛋白質科学会年会若手奨励賞　受賞
- 7．深川竜郎，1，Chromosome Research Associate Editor
- 8．深川竜郎，1，Peer J, Associate Editor

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B. DEPARTMENT OF CELL GENETICS

B-a. Division of Cytogenetics

B. DEPARTMENT OF CELL GENETICS

B-a. Division of Cytogenetics

Takehiko Kobayashi

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Poole A.M., Kobayashi, T., and Ganley, A.R. (2012) A positive role for yeast extrachromosomal rDNA circles?: Extrachromosomal ribosomal DNA circle accumulation during the retrograde response may suppress mitochondrial cheats in yeast through the action of TAR1. , **BioEssays** , 34 , 725 - 729
- 2 . Iida T., Iida N., Tsutsui Y., Yamao F., Kobayashi T. (2012) RNA interference regulates the cell cycle checkpoint through the RNA export factor, Ptr1, in fission yeast. , **BBRC** , 427 , 143 - 147
- 3 . 小林 武彦 (2012) 今開かれる非コードDNA領域の世界 , 実験医学 , 30 , 2202 - 2208
- 4 . Ganley, A.R., and Kobayashi, T. (2012) Monitoring the rate and dynamics of concerted evolution in the ribosomal DNA repeats of *Saccharomyces cerevisiae* using experimental evolution. , **Molecular Biology and Evolution.** , 28 , 2883 - 2891
- 5 . Ganley A.R., Breitenbach M., Kennedy B.K., and Kobayashi T. (2012) Yeast hypertrophy: cause or consequence of aging? Reply to Bilinski et al , **FEMS yeast research** , 12 , 267 - 268
- 6 . 小林 武彦 (2012) rDNA巨大反復遺伝子群による細胞老化制御 , 実験医学 , 30 , 2228 - 2233

POSTER PRESENTATIONS

- 1 . 飯田哲史,飯田直子,筒井康博,山尾文明,小林武彦 「 分裂酵母RNAi因子による細胞周期制御 」, 第35回日本分子生物学会 , 福岡 , 12/11
- 2 . 鵜之沢英理,坂季美子,小林武彦 「 Tel1はrDNAのDSB修復に関わる 」, 第35回日本分子生物学会 , 福岡 , 12/11
- 3 . Kobayashi, T. 「 rDNA instability and cellular senescence 」, the 8th 3R Symposium , Awaji , 11/26
- 4 . 小林 武彦 「 rDNA stability and cellular senescence 」, The 34th Japan Society for Biomedical Gerontology Symposium & Micro-Nano Global COE , 名古屋 , 10/16
- 5 . 小林 武彦 「 いきものの寿命—ヒトは何歳まで生きられるか— 」, 第12回学習院大学生命科学シンポジウム , 東京 , 11/10
- 6 . 坂 季美子,オーステン ガンレイ,井手 聖,小林 武彦 「 rDNAと細胞老化 」, 第45回酵母遺伝学フォーラム・第20回酵母合同シンポジウム , 京都 宇治市 , 9/5
- 7 . 坂 季美子,井手 聖,Austen Ganley,小林 武彦 「 出芽酵母rDNAの不安定化はMRC1を介して老化を誘導する 」, 日本遺伝学会第84回大会 , 福岡市 , 9/24-26
- 8 . Kobayashi, T. 「 rDNA recombination and cellular senescence. 」, Embo Workshop Recombination Mechanisms and Genome Instability , Jerez de la Frontera, Spain , 05/25

- 9 . Kobayashi, T., Saka K., Ide S., and Ganley A. 「 rDNA instability and cellular senescence. 」, FASEB Yeast,Chromosome Structure, Replication & Segregation , Steamboat Springs, Colorado, USA , 07/16
- 10 . 小林 武彦 「 RTT109はrDNAの異常増幅を防ぐ 」, 第29回染色体ワークショップ , 宮城県 , 1/26
- 11 . 小林 武彦 「 リボソームRNA遺伝子と細胞老化 」, 日本農芸化学会2011年度大会 , 京都市 , 3/25
- 12 . 小林 武彦 「 rDNAの安定性と細胞老化 」, 第1回リボソームミーティング , 東広島市 , 3/15

EDUCATION

- 1 . 小林武彦, 塩見美喜子 若手教育シンポジウム 第35回日本分子生物学会 福岡 12/12

OTHERS

- 1 . 小林武彦 , 2 , 第29回井上学術賞 「遺伝子増幅の分子機構の全容解明と癌化や老化との関係性の発見」
- 2 . 小林武彦 , 2 , 平成24年度科学技術分野の文部科学大臣表彰科学技術賞(研究部門)を受賞 「細胞内の遺伝子増幅機構及びその生理作用の研究」

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B. DEPARTMENT OF CELL GENETICS B-b. Division of Microbial Genetics

B. DEPARTMENT OF CELL GENETICS B-b. Division of Microbial Genetics Hiroyuki Araki

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

1. Prieto, E., Hizume, K., Kobori, T., Yoshimura, S. H., and Takeyasu, K. (2012) Core histone charge and linker histone H1 effects on the chromatin structure of *Schizosaccharomyces pombe*. , **Biosci Biotechnol Biochem.** , 76 , 2261 - 2266
2. Hirano, Y., Hizume, K., Kimura, H., Takeyasu, K., Haraguchi, T., and Hiraoka, Y. (2012) Lamin B receptor recognizes specific modifications of histone H4 in heterochromatin formation. , **J Biol Chem.** , 287 , 42654 - 42663

POSTER PRESENTATIONS

1. Hizume K., Yagura M., Araki H. 「 Reconstitution of DNA replication licensing on the chromatin fiber. 」, アメリカ細胞生物学会 (ASCB), San Francisco (USA), 12/15~12/19
2. Araki H. 「 Molecular mechanism of initiation of chromosomal DNA replication in budding yeast 」, The 8th 3R Symposium , 淡路 , 11/25~11/28
3. Tanaka S., Komeda Y., Umemori T., Kubota Y., Takisawa H. , Araki H. 「 Efficient initiation of DNA replication requires evolutionarily conserved Dpb11-GINS interaction 」, The 8th 3R Symposium , 淡路 , 11/25~11/28
4. Hizume K., Yagura M., Araki H. 「 Concerted interaction between ORC, nucleosomes, and origin DNA ensures origin-specific ORC binding 」, The 8th 3R Symposium , 淡路 , 11/25~11/28
5. Yagura M., Araki H. 「 In vitro study of the initiation of DNA replication in budding yeast 」, The 8th 3R Symposium , 淡路 , 11/25~11/28
6. Araki H. 「 Molecular mechanism of initiation of chromosomal DNA replication in budding yeast 」, 第1回 都医学研 国際シンポジウム「染色体サイクルの制御」, 東京 , 11/29
7. 矢倉勝, 荒木弘之 「 試験管内反応系を用いた出芽酵母複製開始機構の解析 」, 第35回 日本分子生物学会年会 , 福岡 , 12/11~12/14
8. 牧野仁志穂, 荒木弘之 「 出芽酵母Sld3-Sld7複合体によるDNA複製促進の分子機構 」, 第35回 日本分子生物学会年会 , 福岡 , 12/11~12/14
9. 日詰光治, 矢倉勝, 荒木弘之 「 ORCの複製開始点特異的な結合に寄与する、ORC/nucleosome/複製開始点DNA間の協調的相互作用 」, 第35回 日本分子生物学会年会 , 福岡 , 12/11~12/14
10. 田中誠司, 米田弥生, 梅森稔子, 久保田弓子, 滝澤温彦, 荒木弘之 「 Inter-BRCT region of Dpb11 is a conserved GINS-interaction domain and is important for the initiation of DNA replication. 」, 第35回 日本分子生物学会年会 , 福岡 , 12/11~12/14
11. 荒木弘之, 牧野仁志穂, 矢倉勝, 田中尚美, 遠藤静子, 村松 佐知子, 日詰光治, 田中誠司 「 出芽酵母染色体DNAの複製開始機構 」, 第35回 日本分子生物学会年会 , 福岡 ,

12/11～12/14

12 . 牧野仁志保、荒木弘之 「 出芽酵母Sld3-Sld7複合体によるDNA複製開始機構の解明 」, 酵母遺伝学フォーラム 第45回研究報告会 , 宇治 , 9/4～9/6

13 . Tanaka,S.,Komeda,Y.,Umemori,T.,Kubota Y.,Takisawa, H.,Araki,H. 「 Inter-BRCT region of DPB11 is a conserved GINS interaction domain,which is important for the initiation of DNA replication. 」, 2012 FASEB Summer Research Conferences , Steamboat Springs (USA) , 7/15～7/20

14 . Tanaka,S.,Komeda,Y.,Umemori,T.,Kubota Y.,Takisawa, H.,Araki,H. 「 Inter-BRCT region of DPB11 is a conserved GINS interaction domain,which is important for the initiation of DNA replication. 」, 2012 FASEB Summer Research Conferences , Steamboat Springs (USA) , 7/15～7/20

15 . Araki H. 「 Initiation mechanism of chromosome replication 」, BSCB/BSDB/JSDB-Joint Spring Meeting , Warwick (UK) , 4/15～4/18

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C. DEPARTMENT OF DEVELOPMENTAL GENETICS C-a. Division of Developmental Genetics

C. DEPARTMENT OF DEVELOPMENTAL GENETICS C-a. Division of Developmental Genetics Hiroshi Shimizu

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Shimizu, H. (2012) Vette to Volt: Evolution of Cardiac System , **Int J Evol** , 1 , 1 - 2
- 2 . Shimizu, H. (2012) Transplantation analysis of developmental mechanisms in Hydra. , **Int. J. Dev. Biol.** , 56 , 463 - 472

ORAL PRESENTATION

- 1 . Shimizu, H. Biology of Hydra: Let's do not trust biology textbooks. Univ. Rhode Island
4/23

POSTER PRESENTATIONS

- 1 . Shimizu, H., Zhang, X. 「 Hydra the Final Frontier? : Search for Hitherto Unknown Gravity Sensing Mechanism in Primitive Multicellular Organisms 」, 28th American Society for Gravitational and Space Research Conference , New Orleans, LO, USA , 11/28

OTHERS

- 1 . 清水 裕 , 3 , Editorial board member of BMC EvoDevo
- 2 . 清水 裕 , 3 , Editorial board member of International Journal of Evolution

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C. DEPARTMENT OF DEVELOPMENTAL GENETICS

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C-a. Division of Developmental Genetics

Yasushi Hiromi

RESEARCH ACTIVITIES

POSTER PRESENTATIONS

- 1 . Asaoka, M., Yuasa, Y., Hiromi, Y. 「 A transient niche for the maintenance of undifferentiated state of germline-stem-cell precursors in *Drosophila* ovary. 」, 45th JSDB & 64th JSCB , Kobe , 5/28-31
- 2 . Matsuoka, S., Asaoka, M., Hiromi, Y. 「 Keeping the balance of differentiation within the stem cell precursor pool in the *Drosophila* ovary. 」, 45th JSDB & 64th JSCB , Kobe , 5/28-31
- 3 . Asaoka, M. 「 A transient niche for the maintenance of undifferentiated state of germline-stem-cell precursors in *Drosophila* ovary. 」, Keystone symposia "The Life of a Stem Cell: From Birth to Death" , Olympic Valley, USA , 3/12
- 4 . Asaoka, M. 「 A transient niche for the germline stem cell precursors in *Drosophila* ovary. 」, 新学術領域研究「配偶子幹細胞制御機構」国際シンポジウム“Germline - Specification, Sex and Stem Celss-“ (The 58th/60th NIBB Conference) , Okazaki , 7/19
- 5 . Matsuoka, S.,Hiromi, Y,Asaoka, M. 「 Size control of the stem cell precursor pool in the *Drosophila* ovary 」, Germ Cells, Cold Spring Harbor Laboratory Meeting , NewYork , 10/2
- 6 . Matsuoka, S.,Asaoka, M.,Hiromi, Y 「 Keeping the balance of stem cell precursors and developing gametes in the *Drosophila* ovary 」, Germline-Specification, Sex and Stem cells, The 58th/60th NIBB Conference , Okazaki , 7/17
- 7 . 広海健 「 極性からパターンへ:神経突起の区画化と神経回路形成 」, 生理学会合同シンポジウム「細胞極性化の原理と生理機能」第 117 回日本解剖学会総会・全国学術集会 , 甲府 , 3/26-28
- 8 . Asaoka, M., Yuasa, Y., Hiromi, Y. 「 A transient niche for the maintenance of undifferentiated state of germline-stem-cell precursors in *Drosophila* ovary. 」, Keystone symposia "The Life of a Stem Cell: From Birth to Death" , Olympic Valley, USA , 3/12
- 9 . Matsuoka, S., Hiromi, Y., Asaoka, M. 「 Keeping the balance of differentiation within the stem cell precursor pool in the *Drosophila* ovary. 」, Keystone symposia "The Life of a Stem Cell: From Birth to Death" , Olympic Valley, USA , 3/13

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C. DEPARTMENT OF DEVELOPMENTAL GENETICS

C-b. Division of Neurogenetics

C. DEPARTMENT OF DEVELOPMENTAL GENETICS

C-b. Division of Neurogenetics

Takuji Iwasato

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

1. Dhande, O.S., Bhatt, S., Anishchenko, A., Elstrott, J., Iwasato, T., Swindell, E.C., Xu, H.P., Jamrich, M., Itohara, S., Feller, M.B., Crair, M.C., (2012) Role of adenylyl cyclase 1 in retinofugal map development, **J Comp Neurol**, 520, 1562 - 1583
2. Yamashita, H., Chen, S., Komagata, S., Hishida, R., Iwasato, T., Itohara, S., Yagi, T., Endo, N., Shibata, M., Shibuki, K. (2012) Restoration of contralateral representation in the mouse somatosensory cortex after crossing nerve transfer, **PLoS One**, 7, e35676 -

ORAL PRESENTATION

1. 岩里 琢治 α キメラリンRac-GAPの神経回路発達と機能における役割 統合失調症勉強会 大阪大学大学院医学系研究科精神医学教室 医局企画室 8/31
2. 岩里 琢治 バレル皮質体性感覚マップ形成のマウス遺伝学 帝京大学医学部生理学教室セミナー 帝京大学医学部生理学講座 5/15

POSTER PRESENTATIONS

1. Iwasato, T. 「マウス体性感覚野バレル発達のin vivoイメージング」, 認識と形成研究会 2012, 宇都宮, 12/1-12/2
2. Iwata, R., Mizuno, H., Iwama, M., Goto, H., Tanaka, M., Itohara, S., Iwasato, T. 「The RacGAP α 2-chimerin functions during development to establish normal hippocampus-dependent learning in adulthood」, Society for Neuroscience 2012 MCCS, ニューオリンズ, 10/11-10/12
3. Mizuno, H., Luo, W., Saito, Y.M., Itohara, S., Iwasato, T. 「In vivo 2-photon imaging of neonatal cortex reveals NMDA receptor-dependent refinement of barrel cell dendrites」, 遺伝研研究会 Circuit construction in the mammalian cerebral cortex: Genetic and imaging approaches, 三島, 12/15-12/16
4. Iwata, R., Mizuno, H., Iwama, M., Goto, H., Tanaka, M., Itohara, S., Iwasato, T. 「The RacGAP α 2-chimerin acts during development to establish normal hippocampus-dependent learning in adulthood」, 遺伝研研究会 Circuit construction in the mammalian cerebral cortex: Genetic and imaging approaches, 三島, 12/15-12/16
5. Suzuki, A., Itohara, S., Iwasato, T. 「Subcortical AC1 and NMDARs play important roles for barrel formation 皮質下領域1型アデニル酸シクラーゼおよびNMDA 受容体はバレル形成において重要な役割を担う」, 遺伝研研究会 Circuit construction in the mammalian cerebral cortex: Genetic and imaging approaches, 三島, 12/15-12/16
6. 岩里琢治 「Towards in vivo imaging of barrel formation in neonatal mouse cortex」, 遺

伝研研究会 Circuit construction in the mammalian cerebral cortex : Genetic and imaging approaches , 三島 , 12/15-12/16

7 . 岩田亮平,岩里琢治 「 The RacGAP α -chimerin regulates neuronal morphology and function in the brain 」, 2012年度 包括脳ネットワーク夏のワークショップ , 仙台市 , 7/26

8 . 水野秀信,岩里 琢治 「 新生仔マウス体性感覚野におけるバレル細胞樹状突起の精緻化過程とNMDAR の役割 」, 2012年度 包括脳ネットワーク夏のワークショップ , 仙台市 , 7/26

9 . 香取将太,岩里琢治 「 Protocadherin- α C2 is required for normal distributions of serotonergic axons 」, 2012年度 包括脳ネットワーク夏のワークショップ , 仙台市 , 7/26

10 . 岩里琢治 「 マウス体性感覚系回路の発達期リモデリング 」, 2012年度 包括脳ネットワーク夏のワークショップ , 仙台市 , 7/26

11 . 鈴木亜友美,岩里琢治 「 Thalamic adenylyl cyclase 1 plays important roles for the barrel formation. 」, 2012年度 包括脳ネットワーク夏のワークショップ , 仙台市 , 7/26

12 . Iwata,R., Mizuno,H., Iwama,M., Goto,H., Tanaka,M., Itohara,S., Iwasato,T. 「 Differential roles of Rac-GAP α -chimerin isoforms in cognitive function and neuronal morphogenesis 」, Society for Neuroscience 2012 , ニューオリンズ , 10/13-10/17

13 . Mizuno,H., Luo,W., Saito,Y.M., Itohara,S., Iwasato,T. 「 Direct analyses of NMDA receptor-mediated refinement of barrel neuron dendrites in neonatal mouse somatosensory cortex 」, Society for Neuroscience 2012 , ニューオリンズ , 10/13-10/17

14 . 岩里琢治 「 脳高次機能における、 α キメリンRac-GAPの働き 」, 第3回脳表現型の分子メカニズム研究会 , 名古屋 , 12/22-12/23

15 . 水野秀信, 齊藤芳和, 糸原重美, 岩里琢治 「 幼仔期体性感覚野におけるNMDA受容体依存的なバレル細胞樹状突起の精緻化 NMDA receptor-dependent refinement of barrel cell dendrite in the neonatal mouse somatosensory cortex 」, 第35回 日本神経科学大会 (Neuroscience 2012) , 名古屋 , 9/21

16 . 岩田亮平,岩間瑞穂,後藤大道,田中三佳,糸原重美,岩里琢治 「 認知機能とニューロン形態形成におけるRac-GAP α キメリンのイソフォームの特異的な役割 Differential roles of Rac-GAP α -chimerin isoforms in cognitive function and neuronal morphogenesis 」, 第35回 日本神経科学大会 (Neuroscience 2012) , 名古屋 , 9/19

17 . 鈴木亜友美,糸原重美,岩里琢治 「 視床の1型アデニル酸シクラーゼはバレル形成において重要な役割を担う Thalamic adenylyl cyclase 1 plays important roles for the barrel formation. 」, 第35回 日本神経科学大会 (Neuroscience 2012) , 名古屋 , 9/21

18 . 岩里琢治 「 幼仔脳における神経回路の発達:マウス体性感覚野(バレル野)での研究 」, 日本分子生物学会 第12回春季シンポジウム , 山梨県笛吹市 , 4/25-4/26

EDUCATION

1 . 田川義晃,岩里琢治 遺伝研研究会 Circuit construction in the mammalian cerebral cortex : Genetic and imaging approaches 三島 12/15-12/16

2 . 岩里琢治 認識と形成研究会2011 国立遺伝学研究所研究会、科学技術振興機構(共催) 三島 1/21~1/22

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C. DEPARTMENT OF DEVELOPMENTAL GENETICS C-c. Division of Molecular and Developmental Biology

C. DEPARTMENT OF DEVELOPMENTAL GENETICS C-c. Division of Molecular and Developmental Biology Koichi Kawakami

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Liu, W., Chen, J.R., Hsu, C.H., Li, Y.H., Chen, Y.M., Lin, C.Y., Huang, S.J., Chang, Z.K., Chen, Y.C., Lin, C.H., Gong, H.Y., Lin, C.C., Kawakami, K., and Wu, J.L. (2012) A zebrafish model of intrahepatic cholangiocarcinoma by dual expression of hepatitis B virus X and hepatitis C virus core protein in liver , **Hepatology** , 56 , 2268 - 2276
- 2 . Tsetskhladze, Z.R., Canfield, V.A., Ang, K.C., Wentzel, S.M., Reid, K.P., Berg, A.S., Johnson, S.L., Kawakami, K., and Cheng, K.C. (2012) Functional assessment of human coding mutations affecting skin pigmentation using zebrafish. , **PLoS ONE** , 7 , e47398 -
- 3 . Fukui, H., Shiba, D., Asakawa, K., Kawakami, K., and Yokoyama, T. (2012) The ciliary protein Nek8/Nphp9 acts downstream of Inv/Nphp2 during pronephros morphogenesis and left-right establishment in zebrafish , **FEBS letter** , 586 , 2273 - 2279
- 4 . Shimizu, N., Kawakami, K., and Ishitani, T. (2012) Visualization and exploration of Tcf/Lef function using a highly responsive Wnt/ β -catenin signaling-reporter transgenic zebrafish , **Developmental Biology** , 370 , 71 - 85
- 5 . Freeman, S., Chrysostomou, E., Kawakami, K., Takahashi, Y., and Daudet, N. (2012) Tol2-mediated gene transfer and in ovo electroporation of the otic placode: a powerful and versatile approach for investigating embryonic development and regeneration of the chicken inner ear , **Methods in Molecular Biology** , 916 , 127 - 139
- 6 . Macdonald, J., Taylor, L., Sherman, A., Kawakami, K., Takahashi, Y., Sang, H.M., and McGrew, M.J. (2012) Efficient genetic modification and germ-line transmission of primordial germ cells using piggyBac and Tol2 transposons , **Proc. Natl. Acad. Sci. USA** , 109 , 1466 - 1472
- 7 . Yano, T., Abe, G., Yokoyama, H., Kawakami, K., and Tamura, K. (2012) Mechanism of pectoral fin outgrowth in zebrafish development , **Development** , 139 , 2916 - 2925
- 8 . Mayasari, N.I., Mukougawa, K., Shigeoka, T., Kawakami, K., Kawaichi, M., and Ishida, Y. (2012) Mixture of differentially tagged Tol2 transposons accelerates conditional disruption of a broad spectrum of genes in mouse embryonic stem cells , **Nucleic Acids Research** , 40 , e97 -
- 9 . Hirata, H., Wen, H., Kawakami, Y., Naganawa, Y., Ogino, K., Yamada, K., Saint-Amant, L., Low, S.E., Cui, W.W., Zhou, W., Sprague, S.M., Asakawa, K., Muto, A., Kawakami, K., and Kuwada, J.Y. (2011) Connexin 39.9 protein is necessary for coordinated activation of slow-twitch muscle and normal behavior in zebrafish. , **The Journal of Biological Chemistry** , 287 , 1080 - 1089
- 10 . Moriyama, Y., Kawanishi, T., Nakamura, R., Tsukahara, T., Sumiyama, K., Suster, M.L., Kawakami, K., Toyoda, A., Fujiyama, A., Yasuoka, Y., Nagao, Y., Sawatari, E., Shimizu, A.,

- Wakamatsu, Y., Hibi, M., Taira, M., Okabe, M., Naruse, K., Hashimoto, H., Shimada, A., and Takeda, H. (2012) The medaka *zic1/zic4* mutant provides molecular insights into teleost caudal fin evolution. , **Current Biology** , 22 , 601 - 607
- 11 . Asakawa, K., Higashijima, S.I., and Kawakami, K. (2011) An *mnr2b/hlxb9lb* enhancer trap line that labels spinal and abducens motor neurons in zebrafish , **Developmental Dynamics** , 241 , 327 - 332
- 12 . Pujol-Martí, J., Zecca, A., Baudoin, J.P., Faucherre, A., Asakawa, K., Kawakami, K., and López-Schier, H. (2012) Neuronal birth order identifies a dimorphic sensorineural map , **The Journal of Neuroscience** , 32 , 2976 - 2987
- 13 . Nakayama, S., Ikenaga, T., Kawakami, K., Ono, F., and Hatta, K. (2012) Transgenic line with *gal4* insertion useful to study morphogenesis of craniofacial perichondrium, vascular endothelium-associated cells, floor plate, and dorsal midline radial glia during zebrafish development , **Development, Growth & Differentiation** , 54 , 202 - 215

ORAL PRESENTATION

- 1 . 川上浩一 ゼブラフィッシュが解き明かす脳のはたらき 理数学生応援プロジェクト入門特別講義 静岡大学・理学部 11/22
- 2 . Kawakami, K. Transposon-mediated genetic methods in zebrafish and their application to the study of functional neural circuits NIH 10/31
- 3 . Kawakami, K. The transposon-mediated genetic methods in zebrafish and their application to the study of functional neural circuits National Taiwan University 10/9
- 4 . Kawakami, K. Transposon-mediated genetic methods in zebrafish and their application to the study of functional neural circuits Stanford University 8/13
- 5 . Kawakami, K. Transposon-mediated genetic methods in zebrafish and their application to the study of functional neural circuits UC Berkeley 8/14
- 6 . 川上浩一 モデル脊椎動物ゼブラフィッシュを用いた神経回路機能研究 特別講義 国際基督教大学 6/6
- 7 . Kawakami, K. Transposon-mediated genetic methods in zebrafish and their applications to the study of functional neural circuits Colloquia Institute of Neuroscience, Chinese Academy of Sciences 4/24
- 8 . Kawakami, K. Transposon-mediated genetic methods in zebrafish and their applications to the study of functional neural circuits Shanghai Ocean University 4/23

POSTER PRESENTATIONS

- 1 . 大倉正道, 武藤彩, 小谷友也, 東島眞一, 川上浩一, 中井淳一 「カルシウムプローブ蛋白質によるゼブラフィッシュ 脊髄運動神経の時空間活動の可視化」, 第 85 回日本薬理学会年会, 京都, 3/15
- 2 . Oka, M., Moriyama, T., Asally, M., Kawakami, K., Yoneda, Y. 「Differential Role for Oct4 Nucleocytoplasmic Dynamics in Somatic Cell Reprogramming and Self-renewal of Embryonic Stem Cells」, 第35回日本分子生物学会年会, 福岡, 12/11-14
- 3 . Taira, H., Shinoto, A., Abe, G., Kawakami, K., Yamasu, K., 「Functional Analysis of the Forebrain-forming Genes in Zebrafish Embryos by the GAL4-UAS System」, 第35回日本分子生物学会年会, 福岡, 12/11-14
- 4 . Koichi Kawakami, Lal Pradeep, Mari Hiratani 「Genetic dissection of the adult zebrafish brain by the Gal4-UAS method」, Imaging Structure and Function in the Zebrafish Brain, London, 12/7-10
- 5 . Tanabe, H., Lal, P., Muto, A., and Kawakami, K. 「Trace active avoidance conditioning in the adult zebrafish」, Imaging Structure and Function in the Zebrafish Brain, London, 12/7-10
- 6 . Moriyama, T., Asally, M., Kawakami, K., and Yoneda, Y. 「Differential role for Oct4 nucleocytoplasmic dynamics in somatic cell reprogramming and self-renewal of embryonic stem cells」, The 35th Annual Meeting of the Molecular Biology Society of Japan, 博多, 12/11-14
- 7 . Taira, H., Shinoto, A., Abe, G., Kawakami, K., and Yamasu, K. 「Functional analysis of the forebrain-forming gene in zebrafish embryos by the Gal4-UAS system」, The 35th

Annual Meeting of the Molecular Biology Society of Japan , 博多 ,

8 . Kawakami, K. 「 Tol2-mediated transgenesis, gene trapping, enhancer trapping and Gal4-UAS methods 」, Janelia workshop on zebrafish genetics, transgenesis, and systems biology , Ashburn, VA , 11/1-2

9 . Asakawa, K., Abe, G., Kawakami, K. 「 Role of the L-type lectin VIPL/Lman2la in the development of escape locomotion in zebrafish 」, Neuroscience 2012 , New Orleans , 10/13-17

10 . Abe, G., Asakawa, K., Ito, A., Fukuda, R., Tanabe, H., Muto, A., Lal, P., Wada, H., Kawakami, K. 「 Development of Tol2 transposon mediated gene trap method in zebrafish using MAZ transcription termination site 」, Asia-Pacific Developmental Biology Conference 2012 , Taipei, Taiwan , 10/5-8

11 . Hibi, M., Takeuchi, M., Yonemura, S., Asakawa, K., Kawakami, K., Shimizu, T. 「 Role of basement membrane in axogenesis of cerebellar granule cells in zebrafish 」, Asia-Pacific Developmental Biology Conference 2012 , Taipei, Taiwan , 10/5-8

12 . Kawakami, K. 「 The transposon-mediated genetic methods in zebrafish and their application to the study of functional neural circuits 」, Asia-Pacific Developmental Biology Conference 2012 , Taipei, Taiwan , 10/5-8

13 . 浅川和秀, 川上浩一 「ゼブラフィッシュL型レクチンVIPLの逃避ロコモーションにおける機能」, 第35回日本神経科学大会 , 名古屋 , 9/18-21

14 . 天羽龍之介, 揚妻正和, 木下雅恵, 白木利幸, 山崎昌子, 青木田鶴, 東島眞一, 松田勝, Suster, M.L., 川上浩一, 大島登志男, 相澤秀紀, 岡本仁 「ゼブラフィッシュ外側手綱核相同領域は能動的回避学習を制御する」, 第35回日本神経科学大会 , 名古屋 , 9/18-21

15 . 竹内未紀, 清水貴史, 浅川和秀, 川上浩一, 米村重信, 日比正彦 「IV型コラーゲンはゼブラフィッシュにおける小脳顆粒細胞の軸索伸長に必要である」, 第35回日本神経科学大会 , 名古屋 , 9/18-21

16 . Amo, R., Agetsuma, M., Kinoshita, M., Shiraki, T., Aoki, T., Yamazaki, M., Higashijima, S., Matsuda, M., Suster, M.L., Kawakami, K., Ohshima, T., Aizawa, H., Okamoto, H. 「 The lateral habenula homolog regulates learning of active instrumental behavior in zebrafish 」, The 18th Japanese Medaka and Zebrafish Meeting , Kyoto , 9/22-23

17 . Shimizu, N., Kawakami, K., Ishitani, T. 「 Exploration of Tcf/Lef function using a highly responsive Wnt/ β -catenin signaling-reporter transgenic zebrafish 」, The 18th Japanese Medaka and Zebrafish Meeting , Kyoto , 9/22-23

18 . Sakagami, M., Higashijima, S., Abe, T., Asakawa, K., Kawakami, K., Hibi, M. 「 Visualization of climbing fibers in zebrafish 」, The 18th Japanese Medaka and Zebrafish Meeting , Kyoto , 9/22-23

19 . Taira, H., Kuroyanagi, Y., Kawakami, K., Yamasu, K. 「 Functional analysis of the forebrain-forming genes in zebrafish embryos by the Gal4-UAS system 」, The 18th Japanese Medaka and Zebrafish Meeting , Kyoto , 9/22-23

20 . Takeuchi, M., Yamaguchi, S., Yonemura, S., Asakawa, K., Kawakami, K., Takada, S., Shimizu, T., Hibi, M. 「 Role of basement membrane in axogenesis of cerebellar granule cells 」, The 18th Japanese Medaka and Zebrafish Meeting , Kyoto , 9/22-23

21 . Wada, H., Kawakami, K. 「 Organ size control through a negative feedback loop mechanism during lateral line development in zebrafish 」, The 18th Japanese Medaka and Zebrafish Meeting , Kyoto , 9/22-23

22 . Okamoto, H., Kawakami, K., Higashijima, S. 「 National Bioresource Project Zebrafish 」, The 18th Japanese Medaka and Zebrafish Meeting , Kyoto , 9/22-23

23 . 川上浩一 「ゼブラフィッシュにおけるトランスポゾンを用いた遺伝学的方法論と機能的神経回路研究への応用」, 第13回 運動器科学研究会 , 京都 , 9/14-15

24 . Asakawa, K., Abe, G., Kawakami, K. 「 Role of L-type lectin VIPL/Lman2la in the escape locomotion in zebrafish 」, The 18th Japanese Medaka and Zebrafish Meeting , Kyoto , 9/22-23

25 . 川上浩一 「トランスジェニックゼブラフィッシュを用いた側線における細胞間相互作用の研究」, 再生医学・再生医療の 先端融合的 共同研究拠点「平成23年度 共同研究会」, 京都 , 9/14-15

26 . Muto, A., Kawakami, K. 「 Visualization of functional neural circuits in zebrafish 」, 10th International Congress of Neuroethology , Maryland, USA , 8/5-10

27 . Muto, A., Ohkura, M., Abe, G., Nakai, J., Kawakami, K. 「 Real-time visualization of the

- neuronal activity in the brain during visual perception of a natural object.], 10th International Conference Zebrafish Development and Genetics , Madison , 6/20-24
- 28 . Shimizu, N., Kawakami, K., Ishitani, T. 「 Visualization and exploration of Tcf/Lef function using a highly responsive Wnt/ β -catenin signaling-reporter transgenic zebrafish.], 10th International Conference Zebrafish Development and Genetics , Madison , 6/20-24
- 29 . Kawakami, K., Abe, G., Asakawa, K., Fukuda, R., Lal, P., Muto, A., Tanabe, H., Wada, H. 「 zTrap and NIGKOF: the databases for gene trap/enhancer trap lines and gene-knockout fish lines.], 10th International Conference Zebrafish Development and Genetics , Madison , 6/20-24
- 30 . Tsetskhladze, Z.R., Canfield, V.A., Ang, K.C., Reid, K.P., Johnson, S.L., Kawakami, K., Cheng, K.C. 「 Functional assessment of human coding polymorphisms affecting skin pigmentation using zebrafish *albino* and *golden* mutants.], 10th International Conference Zebrafish Development and Genetics , Madison , 6/20-24
- 31 . Sittaramane, V., Pan, X., Sawant, A., Huang, P., Kawakami, K., Chandrasekher, A. 「 The Wnt/Planar cell polarity protein Vangl2 functions in floorplate cells to mediate motor neuron migration within the vertebrate brainstem.], 10th International Conference Zebrafish Development and Genetics , Madison , 6/20-24
- 32 . Chen, C., Li, Y., Wu, J., Kawakami, K., Gong, H. 「 Antagonistic roles of Akirin1 and Akirin2 in regulating muscle growth of zebrafish.], 10th International Conference Zebrafish Development and Genetics , Madison , 6/20-24
- 33 . Amo, R., Agetsuma, M., Kinoshita, M., Shiraki, T., Yamazaki, M., Aoki, T., Masuda, M., Higashijima, S., Suster, M., Kawakami, K., Ohshima, T., Aizawa, H., Okamoto, H. 「 Involvement of the lateral habenula homolog in the active avoidance learning in zebrafish.], 10th International Conference Zebrafish Development and Genetics , Madison , 6/20-24
- 34 . Takeuchi, M., Shimizu, T., Asakawa, K., Kawakami, K., Yonemura, S., Hibi, M. 「 Role of type IV collagen in axogenesis of cerebellar granule cells in zebrafish.], 10th International Conference Zebrafish Development and Genetics , Madison , 6/20-24
- 35 . Hibi, M., Takeuchi, M., Kusuda, R., Inoue, C., Shimizu, K., Asakawa, K., Kawakami, K., Yonemura, S., Shimizu, T. 「 Genetic control for neural circuit formation in teleost cerebellum], 第45回日本発生生物学会・第64回日本細胞生物学会合同大会 , 神戸 , 5/28-31
- 36 . Hirata, H., Wen, H., Kawakami, Y., Naganawa, Y., Ogino, K., Yamada, K., Saint-Amant, L., Low, S.E., Cui, W.W., Zhou, W., Sprague, S.M., Asakawa, K., Muto, A., Kawakami, K., Kuwada, J.Y. 「 Electrical coupling in muscle enables compensation of sporadic neural outputs to coordinate robust and efficient behavior during motor development.], 第45回日本発生生物学会・第64回日本細胞生物学会合同大会 , 神戸 , 5/28-31
- 37 . Wada, H., Kawakami, K. 「 Dickkopfs regulate organ growth during lateral line development in zebrafish], 第45回日本発生生物学会・第64回日本細胞生物学会合同大会 , 神戸 , 5/28-31
- 38 . Takeuchi, M., Shimizu, T., Asakawa, K., Kawakami, K., Yonemura, S., Hibi, M. 「 Role of type IV collagen in axogenesis of cerebellar granule cells in zebrafish], 第45回日本発生生物学会・第64回日本細胞生物学会合同大会 , 神戸 , 5/28-31
- 39 . Abe, G., Suster, M.L., Kawakami, K. 「 Producing fgf24BAC:GFP transgenic fish by using Tol2 transposon mediated BAC transgenesis in zebrafish], 第45回日本発生生物学会・第64回日本細胞生物学会合同大会 , 神戸 , 5/28-31
- 40 . Oka, M., Moriyama, T., Asally, M., Kawakami, K., Yoneda, Y. 「 Differential role for Oct4 nucleocytoplasmic dynamics in somatic cell reprogramming and self-renewal of embryonic stem cells], 第45回日本発生生物学会・第64回日本細胞生物学会合同大会 , 神戸 , 5/28-31
- 41 . Liu, W., Chen, J., Li, Y., Gong, H., Kawakami, K., Wu, J. 「 Involvement of TGF- β 1 in intrahepatic cholangiocarcinoma formation using HBx and HCV core dual transgenic zebrafish as a model], the 2012 Cold Spring Harbor Asia Conference Zebrafish Disease Models , Suzhou, China , 4/16-20
- 42 . Hirata, H., Wen, H., Kawakami, Y., Naganawa, Y., Ogino, K., Yamada, K., Saint-Amant, L., Low, S., Cui, W., Zhou, W., Sprague, S., Asakawa, K., Muto, A., Kawakami, K., Kuwada, J. 「 Slow-twitch and fast-twitch muscle defects in zebrafish], the 2012 Cold Spring Harbor Asia Conference Zebrafish Disease Models , Suzhou, China , 4/16-20
- 43 . Kawakami, K. 「 The transposon-mediated genetic methods in zebrafish and their

application to the study of functional neural circuits: transgenic tools for calcium imaging], the 2012 Cold Spring Harbor Asia Conference Zebrafish Disease Models , Suzhou, China , 4/16-20

44 . Lal, P., Suster, M.L., Kawakami, K. 「 Genetic dissection of adult zebrafish brain mediating two-way active avoidance response behavior 」, NEURONAL CIRCUITS, CSH , New York , 3/28-31

45 . Pujol-Martí, J., Zecca, A., Baudoin, J.P., Faucherre, A., Asakawa, K., Kawakami, K., López-Schier, H. 「 Neuronal birth order identifies a dimorphic sensorineural map 」, NEURONAL CIRCUITS, CSH , New York , 3/28-31

46 . 川上浩一 「ゼブラフィッシュにおけるトランスポゾンを用いた方法論の開発とその機能的神経回路研究への応用」, 認識と形成研究会2011, 三島, 1/21-22

47 . Kawakami, K. 「 Transposon-mediated genetic methods in zebrafish and their applications to the study of functional neural circuits 」, FURANO CONFERENCE , Furano, Hokkaido , 3/4-8

EDUCATION

1 . Kawakami, K. Workshop: Imaging cellular activities 10th International Conference Zebrafish Development and Genetics Madison, USA 6/20-24

2 . Kawakami, K., Look, A.T., Patton, E., Peng, J., Zon, L. Fishing for answers:zebrafish models of human development & disease 2012 Cold Spring Harbor Asia Conference Suzhou, China 4/16-20

3 . Wang, H., Kawakami, K. Chairperson of "Tissue development and organogenesis" 2012 Cold Spring Harbor Asia Conference, Fishing for answers: zebrafish models of human development and disease Suzhou, China 4/19

BOOK

1 . 川上浩一 (2012) やりたいことをやる 財団ニュース 平成24年度第1号 9 - 9

OTHERS

1 . Koichi Kawakami , 3 , Editorial board of Zebrafish

2 . Koichi Kawakami , 3 , Editorial board of Mobile DNA

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D. DEPARTMENT OF POPULATION GENETICS

D-a. Division of Population Genetics

D. DEPARTMENT OF POPULATION GENETICS

D-a. Division of Population Genetics

Naruya Saitou

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Japanese Archipelago Human Population Genetics Consortium [Jinam, T., Nishida, N., Hirai, M., Kawamura, S., Oota, H., Umetsu, K., Kimura, R., Ohashi, J., Tajima, A., Yamamoto, T., Tanabe, H., Mano, S., Suto, Y., Kaname, T., Naritomi, K., Yanagi, K., Niikawa, N., Omoto, K., Tokunaga, K., and Saitou N.] (2012) The history of human populations in the Japanese Archipelago inferred from genome-wide SNP data with a special reference to the Ainu and the Ryukyuan populations , **Journal of Human Genetics** , 57 , 787 - 795
- 2 . Sumiyama,K., Miyake, T., Grimwood, J., Stuart, A., Dickson, M., Schmutz, J., Ruddle, FH., Myers, RM., and Amemiya, CT. (2012) Theria-specific homeodomain and cis-regulatory element evolution of the Dlx3-4 bigene cluster in 12 different mammalian species. , **Journal of Experimental Zoology Part B: Molecular and Developmental Evolution** , 318 , 639 - 650
- 3 . Nakanishi, A., Kobayashi, N., Suzuki-Hirano, A., Nishihara, H., Sasaki, T., Hirakawa, M., Sumiyama, K., Shimogori, T., and Okada, N. (2012) A SINE-Derived Element Constitutes a Unique Modular Enhancer for Mammalian Diencephalic Fgf8. , **PLoS ONE** , 7 , e43785
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- 4 . Jinam, T.A., Hong, L-C., Phipps, M.A., Stoneking, M., Ameen, M., Edo, J., Pan-Asian SNP Consortium, and Saitou, N. (2012) Evolutionary history of continental South East Asians: “early train” hypothesis based on genetic analysis of mitochondrial and autosomal DNA data , **Molecular Biology and Evolution** , , -
- 5 . Kitano, T., Blancher, A., and Saitou, N. (2012) The functional A allele was resurrected via recombination in the human ABO blood group gene , **Molecular Biology and Evolution** , 29 , -
- 6 . Takahashi, M., and Saitou, N. (2012) Identification and characterization of lineage-specific highly conserved noncoding sequences in mammalian genomes , **Genome Biology and Evolution** , , -
- 7 . Kamioka Y.†, Sumiyama K.†, Mizuno R., Sakai Y., Hirata E., Kiyokawa E., and Matsuda M. †co-first authors (2012) Live Imaging of Protein Kinase Activities in Transgenic Mice Expressing FRET Biosensors. , **Cell Structure and Function** , 37 , 65 - 73
- 8 . Moriyama, Y., Kawanishi, T., Nakamura, R., Tsukahara, T., Sumiyama, K., Suster, ML., Kawakami, K., Toyoda, A., Fujiyama, A., Yasuoka, Y., Nagao, Y., Sawatari, E., Shimizu, A., Wakamatsu, Y., Hibi, M., Taira, M., Okabe, M., Naruse, K., Hashimoto, H., Shimada, A., and Takeda, H. (2012) The Medaka zic1/zic4 Mutant Provides Molecular Insights into Teleost Caudal Fin Evolution. , **Current Biology** , 22 , 601 - 607

- 9 . Kryukov, K., Sumiyama, K., Ieko, K., Gojobori T., and Saitou, N. (2012) A new database (GCD) on genome composition for eukaryote and prokaryote genome sequences and their initial analyses. , **Genome Biology and Evolution** , 4 , 501 - 512
- 10 . Smith, JJ., Sumiyama, K., and Amemiya, CT. (2011) A living fossil in the genome of a living fossil: Harbinger transposons in the coelacanth genome. , **Molecular Biology and Evolution** , 29 , 985 - 993

ORAL PRESENTATION

- 1 . 斎藤成也 集中講義 基礎遺伝学 山形大学・医学部 1/31
- 2 . 斎藤成也 集中講義 分子進化学 東京大学理学部 5/30,6/6,13,20
- 3 . 斎藤成也 集中講義 知能工学特別講義 広島市立大学大学院情報科学研究科 8/27,28
- 4 . 斎藤成也 集中講義 分子生物学特別講義 埼玉大学理学部 12/12,13,14
- 5 . 斎藤成也 分子進化学と分子系統学 第166回農林交 流センターワークショップ「分子系統学の理論と実習」 農林水産省農林水産技術会議事務局筑波事務所 10/31
- 6 . 斎藤成也 現代遺伝学における筋ジストロフィーという病 気 日本筋ジストロフィー協会総会 戸山サンライズ・東京 5/19
- 7 . Sumiyama, K. Cis-element evolution of the Dlx genes as an underlying mechanism in toolkit gene co-option in vertebrate appendages. CDB SEMINAR KOBE RIKEN CDB 12/25

POSTER PRESENTATIONS

- 1 . 斎藤成也 「生物のコミュニケーションの進化についてー人 類学的立場からー」, 第12回自然科学研究機構シンポジウム「知的生命の可能性 -宇宙に仲間はいるか-」, 東京, 3/20
- 2 . 斎藤成也 「心身一元論者からみたエネルギー」, 総研大学融 合プロジェクトシンポジウム「エネルギーを考える」, 東京, 3/11
- 3 . Sumiyama, K. 「 Evolution of Cis-regulatory Elements in the Vertebrate Dlx Bigene Cluster System 」, The 8h Okazaki Biology Conference -Speciation and Adaptation II - Environment and Epigenetics -, Okazaki , 3/18-23
- 4 . 隅山 健太、斎藤 成也 「 人類進化におけるゲノム非コード領域転写調節機能進化解析の試み 」, 第66回日本人類学会大会, 横浜, 11/2-4
- 5 . Hettiarachchi,N., Kryukov,K., Sumiyama,K., Saitou,N. 「 Analysis of conserved noncoding sequences(CNSs) in plants 」, 日本遺伝学会第84回大会, 福岡市, 9/24-26
- 6 . 隅山 健太 「 Gsxホメオボックス遺伝子のパラログ転写調節領域の機能と進化 」, 日本進化学会第14回東京大会, 東京, 8/23
- 7 . Kamioka, Y., Sumiyama, K., Mizuno, R., Matsuda, M. 「 Live Imaging of Protein Kinase Activities in Transgenic Mice. 」, 第45回日本発生生物学会・第64回日本細胞生物学会合同大会, 神戸, 5/28-31

EDUCATION

- 1 . 斎藤 成也 総研大戦略的研究プロジェクト「考古学における年代測定的重要性」 東京 3/30

BOOK

- 1 . 斎藤成也 (2012) DNAに刻まれたヒトの大移動史 人類大移動 133 - 148
- 2 . 斎藤成也 (2012) 人間と他の生物との連続と断絶 進化論と平和の人間学的考察 17 - 22
- 3 . 斎藤成也他編集委員 (2012) 進化学辞典 進化学辞典 -

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E. DEPARTMENT OF INTEGRATED GENETICS E-b. Division of Agricultural Genetics

E. DEPARTMENT OF INTEGRATED GENETICS E-b. Division of Agricultural Genetics Tetsuji Kakutani

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

1. Sasaki T, Kobayashi A, Saze H, and Kakutani T (2012) RNAi-independent de novo DNA methylation revealed in Arabidopsis mutants of chromatin remodeling gene DDM1. , **Plant J** , 70 , 705 - 713
2. Ikeda Y, Kinoshita Y, Susaki D, Ikeda Y, Iwano M, Takayama S, Higashiyama T, Kakutani T, Kinoshita T (2012) HMG domain containing SSRP1 is required for DNA demethylation and genomic imprinting in Arabidopsis , **Dev Cell** , 21 , 589 - 596
3. Higo H, Tahir M, Takashima K, Miura A, Watanabe K, Tagiri A, Ugaki M, Ishikawa R, Eiguchi M, Kurata N, Sasaki T, Richards E, Takano M, Kishimoto N, Kakutani T, Habu Y (2012) DDM1 (decrease in DNA methylation) genes in rice (Oryza sativa). , **MGG** , 287 , 785 - 792
4. Tsukahara S.,Kawabe, A.,Kobayashi A., Ito T., Aizu T., Shin-i T., Toyoda, A., Fujiyama A., Tarutani Y., Kakutani T. (2012) Centromere-targeted de novo integrations of an LTR retrotransposon of Arabidopsis lyrata. , **Genes & Development** , 26 , 705 - 713

ORAL PRESENTATION

1. Chen, C. Epigenetics studies in rice and the moss *Physcomitella patens* 浙江大学 11/12

POSTER PRESENTATIONS

1. 角谷徹仁 「 Genetics of DNA methylation in genes and transposons in Arabidopsis 」, 日本遺伝学会第84回大会, 福岡市, 9/24
2. Chen, C. 「 rDNA-targeted intergration of a non-autonomous LTR retrotransposon 」, Cold Spring Harbor Asia Conferences , 蘇州 , 11/1
3. Kakutani , T. 「 Genetics of DNA methylation in genes and transposons in Arabidopsis 」, Keystone Symposium: Nuclear Events in Plant Gene Expression and Signaling , Taos , March
4. Kakutani T 「 Genetics of DNA methylation in genes and transposons in Arabidopsis 」, Cold Spring Harbor Symposium on Quantitative Biology: Biology of Plants , Cold Spring Harbor , June
5. 付煜 「 Terminal inverted repeat (TIR)を持たないシロイヌナズナMutator様因子の転移様式 」, 日本遺伝学会第84回大会, 福岡市, 9/26
6. 樽谷芳明 「 次世代シーケンサーを用いたシロイヌナズナの一塩基解像度メチローム解析 」, 「ゲノム・遺伝子相関」領域若手の会, 米原市, 11/1

7. 樽谷芳明 「次世代シーケンサーを用いたシロイヌナズナの一塩基解像度メチローム解析」, 「ゲノム・遺伝子相関」領域若手の会, 米原市, 11/1
8. Ito, T. 「Single-base-resolution methylome of mutants affecting differential methylation of genes and transposons」, The 23rd International Conference on Arabidopsis Research, ウィーン, 7/3~7/7
9. 伊藤佑 「DNAメチル化に作用するシロイヌナズナ変異体の一塩基解像度メチローム解析」, 日本遺伝学会第84回大会, 福岡市, 9/25
10. 角谷徹仁 「Genetics of DNA methylation in genes and trasposons in Arabidopsis」, The 8th Okazaki Biology Conference, 岡崎市, 3/22
11. 角谷徹仁 「DNAメチル化の遺伝学」, 第35回日本分子生物学会年会, 福岡市, 12/13
12. Kakutani, T. 「Geneetics of DNA methylation in genes and transposons in Arabidopsis」, 2012International Symposium on Epigenetic Regulation in Higher Plant, 北京, 4/20
13. Inagaki, S. 「Genetic dissection of DNA damage response and endopolyploidy in Arabidopsis」, 2012 CSHL Syposium:The Biology of Plants, コールド・スプリング・ハーバー,
14. Tsukahara, S. 「Centromere-tatgeted de novo integrations of an LTR retrotransposon in Arabidopsis lyrata」, 2012 CSHL Syposium:The Biology of Plants, コールド・スプリング・ハーバー,
15. To. T. 「Arabidopsis HDA6 regulates locus-directed heterochromatin silencing cooperatively with MET1」, 2012 CSHL Syposium:The Biology of Plants, コールド・スプリング・ハーバー,
16. Kakutani, T. 「Genetics of DNA methylation in genes and transposos」, The 23rd International Conference on Arabidopsis Research, ウィーン, 7/4
17. 角谷徹仁 「DNAメチル化とシロイヌナズナ転移因子の動態」, 農芸化学会シンポジウム, 京都市, 3/25

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E. DEPARTMENT OF INTEGRATED GENETICS E-c. Division of Brain Function

E. DEPARTMENT OF INTEGRATED GENETICS E-c. Division of Brain Function Tatsumi Hirata

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Suzuki, I.K., Kawasaki, T., Gojobori, T., and Hirata, T. (2012) The temporal sequence of the mammalian neocortical neurogenetic program drives mediolateral pattern in the chick pallium. , **Developmental Cell** , 22 , 863 - 870
- 2 . Suzuki, I.K., and Hirata, T. (2012) Evolutionary conservation of neocortical neurogenetic program in the mammals and birds. , **BioArchitecture** , 2 , 1 - 6
- 3 . Hirata, T. Kumada, T., Kawasaki, T., Furukawa, T., Aiba, A., Conquet, F., Saga, Y., and Fukuda, A. (2012) Guidepost neurons for the lateral olfactory tract: expression of metabotropic glutamate receptor 1 and innervation by glutamatergic olfactory bulb axons. , **Dev. Neurobiol.** , 72 , 1559 - 1576
- 4 . Hirata, T. (2012) Updated interpretation of the principles of neural development. , **Development** , 139 , 5 - 6

POSTER PRESENTATIONS

- 1 . Hirata, T. 「 Outgrowth Regulated by Four-Transmembrane Protein M6a. 」, US/Japan Brain Research Cooperative Program. , New Orleans , 10/10-12
- 2 . Hirata, T. 「 Mammalian-type neurogenetic potential in chick pallial neural progenitors. 」, Circuit Construction in the Mammalian Cerebral Cortex: Genetic and Imaging Approaches , Mishima , 12/15-16
- 3 . Suzuki, I. K., and Hirata, T. 「 Neocortical neurogenesis is not really “neo”: a new evolutionary model derived from a comparative study of the chick pallial development 」, 7th International Chick Meeting , Nagoya , 11/14-18

EDUCATION

- 1 . 平田たつみ 総研大学融合共同研究会「脳の進化」 葉山 11/12-13
- 2 . 平田たつみ Neural function and development 第45回日本発生生物学会ワークショップ 神戸 5/30

OTHERS

- 1 . 平田たつみ , 1 , 岡崎統合バイオサイエンスセンター運営委員
- 2 . 平田たつみ , 1 , JST さきがけ領域アドバイザー
- 3 . 平田たつみ , 1 , 日本神経科学学会 男女共同参画推進委員

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E. DEPARTMENT OF INTEGRATED GENETICS E-e. Division of Human Genetics

E. DEPARTMENT OF INTEGRATED GENETICS E-e. Division of Human Genetics Itsuro Inoue

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Rabbani, B., Mahdieh, N., Hosomichi, K., Nakaoka, H., and Inoue I. (2012) Next-generation sequencing: impact of exome sequencing in characterizing Mendelian disorders. , **J Hum Genet.** , 57 , 621 - 632
- 2 . Mitsunaga, S., Suzuki, Y., Kuwana, M., Sato, S., Kaneko, Y., Homma, Y., Narita, A., Kashiwase, K., Okudaira, Y., Inoue, I., Kulski, JK., and Inoko H. (2012) Association between six classical HLA loci and rheumatoid arthritis: a comprehensive analysis. , **Tissue Antigen** , 80 , 16 - 25
- 3 . Yoshihara, K., Tsunoda, T., Shigemizu, D., Fujiwara, H., Hatae, M., Fujiwara, H., Masuzaki, H., Katabuchi, H., Kawakami, Y., Okamoto, A., Nogawa, T., Matsumura, N., Udagawa, Y., Saito, T., Itamochi, H., Takano, M., Miyagi, E., Sudo, T., Ushijima, K., Iwase, H., Seki, H., Terao, Y., Enomoto, T., Mikami, M., Akazawa, K., Tsuda, H., Moriya, T., Tajima, A., Inoue, I., and Tanaka K. (2012) High-risk ovarian cancer based on 126-gene expression signature is uniquely characterized by down-regulation of antigen presentation pathway. , **Clin Cancer Res** , 18 , 1374 - 1385

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F. GENETIC STRAINS RESEARCH CENTER F-a. Mammalian Genetics Laboratory

F. GENETIC STRAINS RESEARCH CENTER
F-a. Mammalian Genetics Laboratory
Toshihiko Shiroishi

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

1. Anderson, C., Williams, V.C., Moyon, B., Daubas, P., Tajbakhsh, S., Buckingham, M.E., Shiroishi, T., Hughes, S.M. and Borycki, A.G. (2012) Sonic hedgehog acts cell-autonomously on muscle precursor cells to generate limb muscle diversity, **Genes Dev.**, 26, 2103 - 2117
2. Mori, K., Yamamoto, T., Nakao, Y., Miyazaki, M., Iwata, J., Tamura, M. and Shiroishi, T. (2012) Novel neuroprotective effect of cisternal and intra-cerebral magnesium sulfate solution infusion on delayed cerebral death in rat hippocampal neurons after transient global ischemia, **Brain Res.**, 1480, 72 - 80
3. Tamura, M., and Shiroishi, T. (2012) GSDMB (gasdermin B), **Atlas. Genet. Cytogenet. Oncol. Haematol.**, 16, 271 - 272
4. Spiezio, S. H., Takada, T., Shiroishi, T., and Nadeau, J. H. (2012) Genetic divergence and the genetic architecture of complex traits in chromosome substitution strains of mice, **BMC genetics**, 13, 38 -
5. Takada, T., and Shiroishi, T. (2012) Complex quantitative traits cracked by the mouse inter-subspecific consomic strains, **Exp. Anim.**, 61, 375 - 388
6. Nadeau, J. H., Forejt, J., Takada, T., and Shiroishi, T. (2012) Chromosome substitution strains: gene discovery, functional analysis, and systems studies, **Mammalian Genome**, 23, 693 - 705

ORAL PRESENTATION

1. 田村勝 Micro-CTを用いたマウス表現系解析の新展開 東京医科歯科大学 テクニカルセミナー 東京医科歯科大学 湯島キャンパス 12/18

POSTER PRESENTATIONS

1. 河野 宏光, 田村 勝, 長田 直樹, 鈴木 仁, 森脇 和郎, 太田 邦史, 城石 俊彦 「マウス種分化/ 組換えホットスポット活性化遺伝子Prdm9 の多型解析」, 日本遺伝学会第84回大会, 福岡, 9/24
2. 片岡 太郎, 田村 勝, 前野 哲輝, 城石 俊彦 「骨代謝を制御する遺伝因子の探索」, 日本遺伝学会第84回大会, 福岡, 9/24
3. 田中 成和, 高田 豊行, 城石 俊彦 「エネルギー代謝制御におけるHairlessの新たな役割」, 日本遺伝学会第84回大会, 福岡, 9/24
4. 田村 勝, 城石 俊彦 「ヒト4q-ter に存在する複数遺伝子の量比は頭蓋顔面骨形成に関与する」, 日本遺伝学会第84回大会, 福岡, 9/24

5 . 嵯峨井知子 「 Shh上皮エンハンサーの進化的起源 」, 第二回Tokyo Vertebrate Morphology Meeting , 東京 , 12/1

6 . 高田豊行 「 MSM コンソミックマウスデータベース 」, 第58回実験動物学会総会 , 東京 , 5/25

BOOK

1 . Yonekawa, H., Takada, T., Shitara, H., Taya, C., Matsushima, Y., Matsuoka, K., Kikkawa, Y. (2012) Mouse models for atopic dermatitis developed in Japan **Atopic Dermatitis - Disease Etiology and Clinical Management** 21 - 38

OTHERS

1 . Tamura, M., and Shiroishi, T. , 2 , Best Paper Award 2012 (The 84th Annual Meeting of Genetics Society of Japan), Multiple gene dosage balance on 4q-ter is critical for craniofacial development

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F. GENETIC STRAINS RESEARCH CENTER
F-b. Mammalian Development Laboratory

F. GENETIC STRAINS RESEARCH CENTER
F-b. Mammalian Development Laboratory
Yumiko Saga

RESEARCH ACTIVITIES

PUBLICATIONS Papers

- 1 . Hasegawa K, Okamura Y, Saga Y. (2012) Notch signaling in Sertoli cells regulates cyclical gene expression of Hes1 but is dispensable for mouse spermatogenesis. , **Mol. Cell Biol.** , 32 , 206 - 15
- 2 . Sada A, Hasegawa K, Pin PH, Saga Y. (2012) NANOS2 acts downstream of glial cell line-derived neurotrophic factor signaling to suppress differentiation of spermatogonial stem cells. , **Stem Cells.** , 30 , 280 - 91
- 3 . Geyer CB, Saba R, Kato Y, Anderson AJ, Chappell VK, Saga Y, Eddy EM. (2012) Rhox13 Is Translated in Premeiotic Germ Cells in Male and Female Mice and Is Regulated by NANOS2 in the Male. , **Biol Reprod.** , 86 , 1 - 9
- 4 . Suzuki A, Saba R, Miyoshi K, Morita Y, Saga Y. (2012) Interaction between NANOS2 and the CCR4-NOT deadenylation complex is essential for male germ cell development in mouse. , **PLoS One.** , 7 , -
- 5 . Sakabe M, Kokubo H, Nakajima Y, Saga Y. (2012) Ectopic retinoic acid signaling affects outflow tract cushion development through suppression of the myocardial Tbx2-Tgfb2 pathway. , **Development.** , 139(2) , 385 - 95
- 6 . Igarashi K, Kitajima S, Aisaki K, Tanemura K, Taquahashi Y, Moriyama N, Ikeno E, Matsuda N, Saga Y, Blumberg B, Kanno J. (2012) Development of humanized steroid and xenobiotic receptor mouse by homologous knock-in of the human steroid and xenobiotic receptor ligand binding domain sequence. , **J Toxicol Sci** , 37 , 373 - 80
- 7 . Sparrow DB, Chapman G, Smith AJ, Mattar MZ, Major JA, O'Reilly VC, Saga Y, Zackai EH, Dormans JP, Alman BA, McGregor L, Kageyama R, Kusumi K, Dunwoodie SL. (2012) A mechanism for gene-environment interaction in the etiology of congenital scoliosis. , **Cell.** , 149 , 295 - 306
- 8 . Saga Y. (2012) The synchrony and cyclicity of developmental events. , **Cold Spring Harb Perspect Biol** , , -
- 9 . Hirata T, Kumada T, Kawasaki T, Furukawa T, Aiba A, Conquet F, Saga Y, Fukuda A. (2012) Guidepost neurons for the lateral olfactory tract: Expression of metabotropic glutamate receptor 1 and innervation by glutamatergic olfactory bulb axons. , **Dev Neurobiol.** , , -
- 10 . Klaus A, Müller M, Schulz H, Saga Y, Martin JF, Birchmeier W. (2012) Wnt/ β -catenin and Bmp signals control distinct sets of transcription factors in cardiac progenitor cells. , **Proc Natl Acad Sci U S A.** , 109 , 10921 - 6
- 11 . Saga Y. (2012) The mechanism of somite formation in mice. , **Curr Opin Genet Dev.** , 22 , 331 - 8
- 12 . Matsuda S, Kuwako KI, Okano HJ, Tsutsumi S, Aburatani H, Saga Y, Matsuzaki Y, Akaike A, Sugimoto H, Okano H. (2012) Sox21 Promotes Hippocampal Adult Neurogenesis via the Transcriptional Repression of the Hes5 Gene. , **J Neurosci.** , 32 , 12543 - 12557
- 13 . Hasegawa K, Saga Y. (2012) Retinoic acid signaling in Sertoli cells regulates organization of the blood-testis barrier through cyclical changes in gene expression. , **Development.** , 139 , 4347 - 55
- 14 . Okubo Y, Sugawara T, Abe-Koduka N, Kanno J, Kimura A, Saga Y. (2012) Lfng regulates the synchronized oscillation of the mouse segmentation clock via trans-repression of Notch signalling. , **Nat Commun** , 1141 , -
- 15 . Morimoto M, Nishinakamura R, Saga Y, Kopan R. (2012) Different assemblies of Notch receptors coordinate the distribution of the major bronchial Clara, ciliated and neuroendocrine cells. , **Development.** , 139 , 4365 - 73
- 16 . Yamanishi E, Takahashi M, Saga Y, Osumi N. (2012) Ectoderm and differentiation of cephalic neural crest-derived cells in the developing mouse telencephalon. , **Dev Growth Differ.** , 54 , 785 - 800
- 17 . Kawaminami S, Breakspear S, Saga Y, Noecker B, Masukawa Y, Tsuchiya M, Oguri M, Inoue Y, Ishikawa K, Okamoto M. (2012) Deletion of the Sox21 gene drastically affects hair lipids. , **Exp Dermatol.** , 21 , 974 - 6

POSTER PRESENTATIONS

- 1 . Quan Wu. 「 Nodal/Activin Promotes Sex Differentiation of Male Germ Cells through MAPK P38 Signaling Pathway 」, The 58th/60th NIBB Conference , Okazaki , 7/17-21
- 2 . Yumiko Saga. 「 NANOS2-mediated RNA regulation in germ cell differentiation 」, ISSCR , , 6/15

3. Yumiko Saga. 「 The molecular mechanism of NANOS2-mediated RNA regulation in germ cell differentiation. 」, Meeting of Japanese Society of Molecular Biology , , 12/15
4. Yumiko Saga. 「 4. NANOS2 and NANOS3 contribute to germ cell differentiation via interacting with different components of the CNOT complex. 」, Meeting of Japanese Society of Biochemistry , Fukuoka , 12/12-14
5. Yumiko Saga. 「 マウス生殖細胞分化におけるNanos2を介したRNA制御機構 」, 日本RNA学会, 仙台 , 7/20
6. Yumiko Saga. 「 Genetic pathways leading to sexual fate decision in mouse germ cells. 」, he 58th/60th NIBB conference , 岡崎 , 7/17-19
7. Yumiko Saga 「 NANOS2-mediated RNA regulation in germ cell differentiation 」, Cold Spring Harbor meeting (Germ cells) , New York, USA , 10/1-6
8. Yuzuru Kato 「 Identification of Authentic Nanos2 Targets in Fetal Male Germ Cells 」, Cold Spring Harbor meeting (Germ cells) , New York, USA , 10/1-6,
9. Atsushi ,Suzuki,Yumiko,Saga. 「 Post-transcriptional regulation in the sexual differentiation of mouse male germ cells 」, 第85回 日本生化学会大会 , 福岡 , 12/14～16
10. Yumiko,Saga,Atsushi,Suzuki. 「 NANOS2 and NANOS3 contribute to germ cell differentiatio via interactions with different components of the CNOT complex 」, 第85回 日本生化学会大会 , 福岡 , 12/14～16
11. 西松伸一郎,日野純,寒川賢治,松尾壽之,相賀裕美子,寺田久美子,成田知弘,濃野勉 「 プロセッシング酵素PC5/6Iによる形態形成の制御 」, 第85回 日本生化学会大会 , 福岡 , 12/14
12. Yumiko,Saga,Atsushi,Suzuki,Yuzuru,Kato. 「 The Molecular Mechanism of NANOS 2-Mediated RNA Regulation in Germ Cell Differentiation 」, 第35回 日本分子生物学会 , 福岡 , 12/11～12/14
13. Yuika,Morita,Yuko,Tsukahara,Peter,Anderson,Junko,Kurokawa,Hiroe,Sugizaki,Mizuyo,Kojima,Yumiko,Saga,Ryuichi,Nishinakamura,Tetsushi,Furukawa,Hesham,Sadek,Chulan,Kwon,Kazuko,Koshiba-Takeuchi,Jun K,Takeuchi. 「 Direct cell Conversion Based on the Concept of Transcription Regulation Network 」, 第35回 日本分子生物学会 , 福岡 , 12/
14. 加藤譲,相賀裕美子 「 Nanos2 Maintains Mitotic Quiescence via Suppressing Dazl Expression in the Mouse Male Germ Cells 」, 第35回 日本分子生物学会 , 福岡 , 12/11
15. Yukuto,Yasuhiko,Yumiko,Saga,Jun,Kanno. 「 Region Specific Regulatory Mechanism of Mesp2 Expression to Initiate Proper Segmentation of Somites 」, 第35回 日本分子生物学会 , 福岡 , 12/11～12/14
16. Yuika,MORita,Yuko,Tsukahara,Peter,Anderson,Junko,Kurokawa,Hiroe,Sugizaki,Mizuyo,Kojima,Yumiko,Saga,Ryuichi,Nishinakamura,Tetsushi,Furukawa,Hesham,Sadek,Chulam,Kwon,Kazuko,Koshiba-Takeuchi,Jun,K,Takeuchi. 「 A Novel Cardiac Transcription Factor Specifies Heart Lineages Upstream of Islet1/Nkx2-5 and Promotes Heart Regeneration 」, 第35回 日本分子生物学会 , 福岡 , 12/11～12/14
17. Yumiko,Saga. 「 "Genetic Pathways Leading to Sexual Fate Decision in Mouse Germ Cells" 」, The 58th/60th NIBB Conference , Okazaki , 7/17-21
18. Yuzuru Kato 「 Identification of Authentic Nanos2 Targets in Fetal Male Germ Cells 」, The 58th/60th NIBB Conference , Okazaki , 7/17-21
19. Rie Saba. 「 Retinoic Acid Activates Mitosis and Interferes Male Gonocyte Differentiation via stra8-independent Pathway in the CYP26B1-null Mutant 」, The 58th/60th NIBB Conference , Okazaki , 7/17-21
20. Quan,Wu,Rie,Saba,Kohei,Kanata,Hiroshi,Hamada,Yumiko,Saga. 「 Nodal/Activin promotes sex differentiation of male germ cells through MAPK P38 signaling pathway. 」, 第45回発生生物学会 , 神戸 , 5/28-31
21. Yuzuru,Kato,Rie,Saba,and Yumiko,Saga. 「 NANOS2 promotes male germ cell program independent of the suppression of meiosis. 」, 第45回発生生物学会 , 神戸 , 5/28-31
22. Quan,Wu,Rie,Saba,Kohei,Kanata,Hiroshi,Hamada,Yumiko,Saga. 「 Nodal/Activin promotes sex differentiation of male germ cells through MAPK P38 signaling pathway 」, 第45回発生生物学会 , 神戸 , 5/28～5/31
23. Quan,Wu,Rie,Saba,Kohei,Kanata,Hiroshi,Hamada, and Yumiko,Saga. 「 Nodal/Activin promotes sex differentiation of male germ cells through MAPK P38 signaling pathway 」, 第45回発生生物学会 , 神戸 , 5/28～5/31
24. Moe,Matsuno,Yumiko,Saga,Hiroyuki,takeda,and Sumiko,Koshida. 「 Loss of Kintoun in mouse causes hydrocephalus due to defective ciliary motility in developing brain ventricles 」, 第45回発生生物学会 , 神戸 , 5/28～5/31
25. Yuzuru,Kato,Rie,Saba,and Yumiko,Saga 「 NANOS2 promotes male germ cell program independent of the suppression of meiosis 」, 第45回発生生物学会 , 神戸 , 5/28～5/31

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F. GENETIC STRAINS RESEARCH CENTER
F-c. Mouse Genomics Resource Laboratory

F. GENETIC STRAINS RESEARCH CENTER
F-c. Mouse Genomics Resource Laboratory
Tsuyoshi Koide

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

1. 高橋阿貴 (2012) 光遺伝学(オプトジェネティクス):行動を制御する神経回路をあきらかにする試み, 動物心理学研究, 62, 147 - 162
2. Takahashi, A., Schilit, A.N., Kim, J., Debold, J.F., Koide, T., Miczek, K.A. (2012) Behavioral characterization of escalated aggression induced by GABA(B) receptor activation in the dorsal raphe nucleus, **Psychopharmacology**, 224, 155 - 166
3. Koide, T., Goto, T., Takano-Shimizu, T. (2012) Genomic mixing to elucidate the genetic system of complex traits, **Experimental Animals**, 61, 503 - 509

POSTER PRESENTATIONS

1. Takahashi, A., Miczek, K.A. Hwa, L.S., Quadros, I., Shimamoto, A., Newman, E.J., DeBold, J.F. 「Alcohol and aggression in preclinical models: Critical modulation of cortical serotonin via GABAA and NMDA receptors」, 16th Congress of the International Society for Biomedical Research on Alcoholism, Sapporo, 9/9-12
2. Koide, T., Kikusui T., Sugimoto, H. 「Genetic basis of strain difference in waveforms of male ultrasonic vocalization」, 1st Workshop of Mouse Ultrasonic Vocalization, Paris, 4/16
3. Tanave, A., Takahashi, A., Shiroishi, T., Koide, T. 「Genetic and molecular analysis of high anxiety-like behaviors in wild-derived mouse strains」, 14th Annual Meeting for International Behavioural and Neural Genetics Society, Boulder, 5/15
4. Ishii, A., Nishi, A., Shiroishi, T., Takahashi, A., Koide, T. 「Genetic dissection of clustered QTLs related to strain difference of home-cage activity」, 14th Annual Meeting for International Behavioural and Neural Genetics Society, Boulder, 5/15
5. 小出剛 「野生から愛玩化マウスへ:その遺伝的基盤解明に向けて」, 第84回日本遺伝学会大会ワークショップ「モデル動物の特徴を活かした行動遺伝学の新たな展開」, 福岡, 9/24
6. 田邊彰, 石井亜矢子, 城石俊彦, 高橋阿貴, 小出剛 「日本産野生由来マウス系統MSMにおける高い不安様行動の分子遺伝学的解析」, 第82回日本実験動物学会総会, 別府, 5/24
7. 小出剛 「マウスにおける社会的親和性の遺伝学的解析」, 第82回日本実験動物学会総会シンポジウム「動物の社会行動解析からヒトの精神疾患を考える」, 別府, 5/24
8. 田邊彰, 高橋阿貴, 城石俊彦, 小出剛 「野生由来マウス系統の高い不安様行動に関する遺伝的・分子的解析」, 第35回日本神経科学大会, 名古屋, 9/18
9. 平田晴菜, 梅森十三, 小出剛, 渡邊和忠, 霜田靖 「神経細胞接着分子Caspr3は発達期の大脳基底核に発現する」, 第35回日本神経科学大会, 名古屋, 9/18
10. 後藤達彦, 小出剛 「マウスの従順性行動に関わる遺伝的影響」, 第35回日本神経科学

大会，名古屋，9/18

11．高橋阿貴，小出剛「背側縫線核GABAB受容体の活性化が引き起こす過剰な攻撃行動」，第35回日本神経科学大会，名古屋，9/18

12．高橋阿貴，小出剛「野生マウス系統MSMの過剰な攻撃行動に関わる遺伝的基盤」，第72回日本動物心理学会大会，西宮，5/12

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F. GENETIC STRAINS RESEARCH CENTER F-d. Model Fish Genomics Resource

F. GENETIC STRAINS RESEARCH CENTER
F-d. Model Fish Genomics Resource
Noriyoshi Sakai

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

1. Kimura, T., Shinya, M., Naruse, K. (2012) Genetic analysis of vertebral regionalization and number in medaka *Oryzias latipes* inbred lines. , **G3** , 2 , 1317 - 1323
2. Kawasaki, T., Saito, K., Sakai, C., Shinya, M., Sakai, N. (2012) Production of zebrafish offspring from cultured spermatogonial stem cells. , **Genes to Cells** , 17 , 316 - 325

POSTER PRESENTATIONS

1. Kawasaki, T., Sakai, N. 「 Establishment of long-term culture conditions for zebrafish spermatogonial stem cells 」, SSR 45th Annual Meeting , State College, Pennsylvania , 8/12-8/15
2. 新屋みのり, 酒井則良 「 兄妹交配によるゼブラフィッシュ近交系の確立 」, 第35回日本分子生物学会年会, 福岡,
3. 新屋みのり, 酒井則良 「 ゼブラフィッシュ近交系の確立 」, 日本遺伝学会 第84回大会, 福岡,
4. Shinya, M., Sakai, N. 「 Establishment of a zebrafish inbred strain by consecutive full sib-pair mating. 」, 第18回小型魚類研究会, 京都,
5. Shinya, M., Sakai, N. 「 Establishment of a zebrafish inbred strain by consecutive full sib-pair mating 」, International Conference on Zebrafish Development and Genetics , ,
6. Kawasaki, T., Sakai, N. 「 Establishment of long-term culture conditions for zebrafish spermatogonial stem cells 」, SSR 45th Annual Meeting , State Collage, Pennsylvania , 8/12-15
7. 酒井則良 「 生殖細胞質構成要素としてのミトコンドリア 」, 日本遺伝学会 第84回大会, 福岡, 9/24-26
8. Kawasaki, T., Saito, K., Sakai, C., Shinya, M., Sakai, N. 「 Establishment of long-term culture conditions for zebrafish spermatogonial stem cells 」, The 58th/60th NIBB Conference , Okazaki , 7/17-21
9. 酒井則良 「 ゼブラフィッシュ減数分裂異常変異体の解析 」, 生殖系列の世代サイクルとエピゲノムネットワーク 第5回班会議シンポジウム, 京都, 11/21-22

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F. GENETIC STRAINS RESEARCH CENTER
F-e. Plant Genetics Laboratory

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PUBLICATIONS

Papers

- 1 . Higo, H., Tahir, M., Takashima, K., Miura, A., Watanabe, K., Tagiri, A., Ugaki, M., Ishikawa, R., Eiguchi, M., Kurata, N., Sasaki, T., Richards, E., Takano, M., Kishimoto, N., Kakutani, T., Habu, Y. (2012) DDM1 (Decrease in DNA Methylation) genes in rice (*Oryza sativa*). , **Mol. Genet. Genomics** , 287 , 785 - 792
- 2 . Huang, X., Kurata, N., Wei, X., Wang ZX., Wang A., Zhao, Q., Zhao, Y., Liu, K., Lu, H., Li, W., Guo, Y., Lu, Y., Zhou, C., Fan, D., Weng, Q., Zhu, C., Huang, T., Zhang, L., Wang, Y., Feng, L., Furuumi, H., Kubo, T., Miyabayashi, T., Yuan, X., Xu, Q., Dong, G., Zhan, Q., Li, C., Fujiyama, A., Toyoda, A., Lu, T., Feng, Q., Qian, Q., Li, J., Han, B. (2012) A map of rice genome variation reveals the origin of cultivated rice , **Nature** , 490 , 497 - 501

POSTER PRESENTATIONS

- 1 . Ohyanagi, H., Kubo, T., Toyoda, A., Fujiyama A., Fujita, M., Igarashi, K., Yano, K., Goicoechea, JL., Wing, R., Kurata, N. 「 CC genome pseudomolecule construction for resolving species diversification 」, 10th International Symposium on Rice Functional Genomics , Chiang Mai, Thailand , 11/26-29
- 2 . Wing, R., Chen, M., Han, B., Gao, L., Hsing, Y., Henry, R., Kurata, N., Oliveria, A., Panaud, O., Wang, W. 「 The International-Oryza Map Alignment Project: A golden path to unlock the genetic diversity hidden within the wild relatives of rice 」, 10th International Symposium on Rice Functional Genomics (Plenary Lectures1) , Chiang Mai, Thailand , 11/26-29
- 3 . Yono, K., Tsuchida, H., Yokoyama, K., Chiba, H., Tada, Y., Mochizuki, T., Suwabe, K., Shimizu, A., Watanabe, M., Kurata, N. 「 OryzaExpress for rice Omics information resources: A new statistical method for gene expression network analysis 」, 10th International Symposium on Rice Functional Genomics , Chiang Mai, Thailand , 11/26-29
- 4 . Ito, Y., Tsuda K., Akiba, T., Kimura, F., Ishibashi, M., Moriya, C., Nakagawa, K., Kurata, N. 「 A role of very-long-chain fatty acids in rice shoot development 」, 10th International Symposium on Rice Functional Genomics , Chiang Mai, Thailand , 11/26-29
- 5 . Ohyanagi, H., Kubo, T., Toyoda, A., Fujiyama, A., Fujita, M., Igarashi, K., Yano, K., Goicoechea, JL, Wing, RA., Kurata, N. 「 CC genome pseudomolecule construction by BAC-supported super scaffolding 」, 10th International Symposium on Rice Functional Genomics , Chiang Mai, Thailand , 11/26-29
- 6 . Harushima, Y., Kurata, N. 「 Detection of reproductive barriers between Aus and indica rice 」, 10th International Symposium on Rice Functional Genomics , Chiang Mai, Thailand , 11/26-29

7. Horiuchi, Y., Harushima, Y., Fujisawa, H., Ohyanagi, H., Fujita, M., Mochizuki, T., Kurata, N. 「 Genome-wide analysis of differentially expressed genes between japonica and indica rice 」, 10th International Symposium on Rice Functional Genomics , Chiang Mai, Thailand , 11/26-29
8. Shenton, M., Kurata, N. 「 Diversity of cysteine-rich antimicrobial-like peptides in *Oryza sativa* complex species 」, 10th International Symposium on Rice Functional Genomics , Chiang Mai, Thailand , 11/26-29
9. 津田勝利, 伊藤幸博, 佐藤豊, 倉田のり 「 茎頂分裂組織の維持に必要なイネKNOX遺伝子の正の自己制御 」, 第53回日本植物生理学会年会, 京都, 3/16-18
10. 秋葉貴文, 石橋まゆ, 守屋千尋, 津田勝利, 倉田のり, 伊藤幸博 「 イネの極長鎖脂肪酸合成酵素遺伝子の突然変異体onion2の解析 」, 日本育種学会第122回講演会, 京都, 9/14-16
11. 山木辰一郎, 大柳一, 山崎将紀, 宮林登志江, 永口貢, 久保貴彦, 倉田のり, 野々村賢一 「 野生イネ系統群のゲノム種を識別するInDelマーカーの開発 」, 日本育種学会第122回講演会, 京都, 9/14-16
12. 大柳一, 永田俊文, 久保貴彦, 津田勝利, 藤田雅文, 竹下紗由美, 瓦間淳子, 長崎英樹, 望月孝子, 神沼英里, 中村保一, 五十嵐香里, 矢野健太郎, 会津智幸, 豊田敦, 藤山秋佐夫, 倉田のり 「 次世代育種に向けた取り組み～高速DNAシーケンシングとデータ解析の遺伝学～ 」, 日本育種学会第122回講演会 ワークショップ, 京都, 9/14-16
13. 小宮怜奈, 大柳一, 新濱充, 渡部聡朗, 倉田のり, 野々村賢一 「 生殖特異的Argonaute, MEL1に結合するsmall RNAの生合成経路 」, 日本育種学会第122回講演会 ワークショップ, 京都, 9/14-16
14. 神沼英里, 望月孝子, 長崎英樹, 児玉悠一, 猿橋智, 大久保公策, 高木利久, 大柳一, 倉田のり, 清水徳朗, 中村保一 「 新型シーケンサのアーカイブ配列と解析パイプライン: 系統間SNP解析を事例として 」, 日本育種学会第122回講演会 ワークショップ, 京都, 9/14-16
15. 小宮怜奈, 大柳一, 新濱充, 渡部聡朗, 筒井康博, 米田弥生, 望月孝子, 神沼英里, 倉田のり, 野々村賢一 「 イネ生殖細胞特異的Argonauteタンパク質MEL1と結合するsmall RNAsの同定 」, 第53回日本植物生理学会年会, 京都, 3/16-18
16. 高橋秀樹, 平田悠人, 大柳一, 瓦間淳子, 永田俊文, 太田垣俊吾, 豊田敦, 藤山秋佐夫, 倉田のり, 堤伸浩 「 次世代シーケンサーを用いたイネ雌性配偶体構成細胞のトランスクリプトーム解析 」, 第53回日本植物生理学会年会, 京都, 3/16-18
17. 関根大輔, 大西孝幸, 古海弘康, 吉野みほ子, 倉田のり, 木下哲 「 イネの倍数体間交雑における胚乳発生異常の解析 」, 第53回日本植物生理学会年会, 京都, 3/16-18
18. 望月孝子, 長崎英樹, 藤澤貴智, 神沼英里, 大柳一, 倉田のり, 二河成男, 中村保一 「 新型シーケンサ・アーカイブ配列からの植物DNA多型注釈データベース構築 」, 第53回日本植物生理学会年会, 京都, 3/16-18
19. 関根大輔, 大西孝幸, 古海弘康, 倉田のり, 木下哲 「 イネの胚乳発生サイズを制御する父母ゲノムの効果 」, 日本育種学会第121回講演会, 宇都宮, 3/28-30
20. 堀内陽子, 春島嘉章, 藤澤洋徳, 大柳一, 藤田雅文, 望月孝子, 倉田のり 「 イネジャポニカ、インディカ間で有意に発現量に差がみられる遺伝子の遺伝子及び周辺塩基配列構造の大規模解析 」, 日本育種学会第121回講演会, 宇都宮, 3/28-30
21. 武田泰実, 池田真由子, 山口秀和, 村田強, 山木辰一郎, 加藤淳太郎, 野々村賢一, 倉田のり, 北野英己 「 ゲノム構成と形態的特徴から見た野生イネ遺伝資源の再評価 」, 日本育種学会第121回講演会, 宇都宮, 3/28-30
22. 濱田和輝, 深澤開, 長山大志, 横山幸治, 土田博子, 五十嵐香里, 倉田のり, 矢野健太郎 「 *OryzaExpress*: イネの遺伝子発現ネットワークとオミックス情報統合データベース 」, 第53回日本植物生理学会年会, 京都, 3/16-18
23. 大柳一, 長崎英樹, 永田俊文, 望月孝子, 神沼英里, 中村保一, 竹下紗由美, 会津智幸, 豊田敦, 藤山秋佐夫, Zhao, Q., Han, B., 倉田のり 「 栽培イネ*Oryza sativa* 2亜種と野生イネ*Oryza rufipogon* 3アクセッションにおける進化的関係 」, 日本育種学会第121回講演会, 宇都宮, 3/28-30
24. 濱田和輝, 深澤開, 長山大志, 横山幸治, 土田博子, 五十嵐香里, 倉田のり, 矢野健太郎 「 大規模遺伝子発現情報に基づく遺伝子発見手法の開発 」, 日本育種学会第121回講演会, 宇都宮, 3/28-30
25. Shenton, M., 倉田のり 「 *Oryza*属の種間交雑における花粉管伸長障害の特性解析 」, 日本育種学会第121回講演会, 宇都宮, 3/28-30
26. 太田垣駿吾, 大柳一, 豊田敦, 藤山秋佐夫, 倉田のり 「 次世代シーケンサーを用いたイ

ネ属での雑種強勢機構の解析」, 日本育種学会第121回講演会, 宇都宮, 3/28-30

27. 久保貴彦, 藤田雅丈, 倉田のり 「イネ雌性不稔に関わる遺伝子発現プロファイリング」, 日本育種学会第121回講演会, 宇都宮, 3/28-30

28. Ohyanagi, H., Nagasaki, H., Nagata T., Mochizuki, T., Kaminuma, E., Nakamura, Y., Takeshita, S., Aizu, T., Toyoda, A., Fujiyama, A., Zhao, Q., Han, B., Kurata, N. 「An evolutionary aspect for two subspecies of *Oryza sativa* and three wild accessions of *Oryza rufipogon*」, Plant and Animal Genome XX, San Diego, 1/14-18

EDUCATION

1. 長戸康郎, 倉田のり イネ分子遺伝学の夢 国立遺伝学研究所研究会 三島 11/9,10

OTHERS

1. 倉田のり, 3, 日本学術会議 第22期会員

2. 倉田のり, 3, アメリカ科学振興協会(American Association for the Advancement of Science:AAAS)の2011年度アメリカ科学振興協会フェロー(2011 AAAS Fellows)として選出。

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F. GENETIC STRAINS RESEARCH CENTER
F-f. Microbial Genetics Laboratory

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Hironori Niki

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

1. Furuya, K., AOKI, K., Niki, H. (2012) Construction of an insertion marker collection of *Sz. japonicus* (IMACS) for genetic mapping & a fosmid library covering its genome. , **Yeast** , 29 , 241 - 249
2. Xu, J., Yanagisawa, Y., Tsankov, A.M., Hart, C., Aoki, K., Kommajosyula, N., Steinmann, K.E., Boichichio, J., Russ, C., Regev, A., Rando, O.J., Nusbaum, C., Niki, H., Milos, P., Weng, Z., & Rhind, N (2012) Genome-wide identification and characterization of replication origins by deep sequencing , **Genome Biology** , 13 , -
3. Nozaki, S., Webb, M.E., & Niki, H (2012) An activator for pyruvoyl-dependent L-aspartate α -decarboxylase is conserved in a small group of the γ -proteobacteria including *Escherichia coli* , **MicrobiologyOpen** , 1 , 298 - 310
4. Furuya, K., Niki, H. (2012) Hyphal differentiation induced via a DNA damage checkpoint-dependent pathway engaged in crosstalk with nutrient stress signaling in *Schizosaccharomyces japonicus* , **Current Genetics** , , -
5. Monteiro, D.C.F., Rugen, M.D., Shepherd, D., Nozaki, S., Niki, H., & Webb, M.E (2012) Formation of a heterooctameric complex between ADC & its cognate activating factor, PanZ, is CoA-dependent , **Biochem Biophys Res. Communications** , 426 , 350 - 355

POSTER PRESENTATIONS

1. 岡本尚, 古谷寛治, 野崎晋五, 仁木宏典 「 ジャポニカス分裂酵母の菌系に見られる光応答現象 」, 第45回酵母遺伝学フォーラム研究報告会, 京都, 9/4-6
2. 岡本尚, 古谷寛治, 野崎晋五, 仁木宏典 「 糸状菌と二形性酵母のゲノムに保存された青色活性化転写複合体(WCC)のジャポニカス分裂酵母での生理的機能 」, 第6回 日本ゲノム微生物学会 若手の会 研究会, 静岡県駿東郡, 9/27
3. 青木敬太, 志波優, 高田啓, 古谷寛治, 吉川博文, 仁木宏典 「 ジャポニカス分裂酵母を用いた核膜動態の解析 」, 第29回染色体ワークショップ, 仙台, 1/25
4. 青木敬太, 志波優, 高田啓, 吉川博文, 仁木宏典 「 Oar2を介した核膜動態の制御は、Anaphaseの進行に重要である 」, 第45回酵母遺伝学フォーラム研究報告会, 京都, 9/4
5. Aoki, K., Shiwa, Y., Takada, H., Yoshikawa, H., Niki, H. 「 Regulation of nuclear envelope dynamics via Oar2 is necessary for the progression of anaphase 」, DYNAMIC ORGANIZATION OF NUCLEAR FUNCTION, New York, 9/27
6. Aoki, K., Shiwa, Y., Takada, H., Yoshikawa, H., Niki, H. 「 Limitation of nuclear envelope dynamics via APC/C is necessary for the progression of semi-open mitosis in *Sz. japonicus* 」, The 8th 3R Symposium, 淡路, 11/25
7. 青木敬太, 志波優, 高田啓, 吉川博文, 仁木宏典 「 Regulation for breakage of nuclear

envelope via Oar2 is necessary for the progression of anaphase in *Sz. japonicus*」, 第35回日本分子生物学会年会, 福岡, 12/11

8. 青木敬太、志波優、高田啓、吉川博文、仁木宏典「Semi-open mitosisの進行に必須な核膜動態制御の解析」, 第30回染色体ワークショップ、第11回核ダイナミクス研究会, 淡路, 12/19

9. 野崎晋五, 仁木宏典「Regulation of pantothenate and CoA synthesis by a novel factor, PanZ in *Escherichia coli*」, 第35回日本分子生物学会年会, 福岡, 12/11

10. 野崎晋五, 仁木宏典「 γ プロテオバクテリアに現れたパントテン酸合成の新規制御因子PanZ」, 第6回日本ゲノム微生物学会年会, 池袋, 3/11

11. 野崎晋五, 仁木宏典「新規因子PanZによるアスパラギン酸- α -脱炭酸酵素の活性制御」, 第9回 21世紀大腸菌研究会, 長浜, 6/21

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Ryu Ueda

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . De Graeve, F.M., Van de Bor, V., Ghiglione, C., Cerezo, D., Jouandin, P., Ueda, R., Shashidhara, L.S., Noselli, S. (2012) *Drosophila* apc regulates delamination of invasive epithelial clusters , **Dev Biol.** , 368 , 76 - 85
- 2 . Yano, H., Yamamoto-Hino, M., Awano, W., Aoki-Kinoshita, KF., Tsuda-Sakurai, K., Okano, H., and Goto, S. (2012) Identification of proteasome components required for apical localization of chaoptin using functional genomics , **J. Neurogenet.** , 26 , 53 - 63

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G. CENTER FOR GENETIC RESOURCE INFORMATION

G-a. Genetic Informatics Laboratory

G. CENTER FOR GENETIC RESOURCE INFORMATION

G-a. Genetic Informatics Laboratory

Yukiko Yamazaki

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Rice WRKY Working Group (2012) Nomenclature report on rice WRKY's – Conflict regarding gene names and its solution , **Rice** , 5 , -
- 2 . H. Honda, S. Nagaoka, Y. Kawai, R. Kemperman, J. Kok, Y. Yamazaki, Y. Tateno, H. Kitazawa, T. Saito (2012) Purification and characterization of two phospho-beta-galactosidases, LacG1 and LacG2, from *Lactobacillus gasser* ATCC33323T. , **J. Gen. Appl. Microbiol.** , 58 , 11 - 17

POSTER PRESENTATIONS

- 1 . Yamazaki, Y.,Tsuchiya, R.,Kimura, G.,Shidahara, Y.,Asanuma, T. 「 Journal annotation pipeline in Oryzabase 」, Biocuration 2012 , Washington, DC. , USA
- 2 . 山崎由紀子 「 ナショナルバイオリソースプロジェクト(NBRP)情報センターの活動紹介 」, 生薬学会シンポジウム「生薬インフォマテイクスデータベースとオミックス」, 千葉県木更津市かずさ, 9/18
- 3 . Matsuura, K., Hosoya, T., Ebihara, A., Jinbo, U., Sugawara, H., Yamazaki, Y., Ito, M. 「 Introduction of GBIF Japan and Utilization of GBIF Data 」, APRU Research Symposium on University Museums , 京都 , 9/11

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G. CENTER FOR GENETIC RESOURCE INFORMATION

G-c. Comparative Genomics Laboratory

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G-c. Comparative Genomics Laboratory

Asao Fujiyama

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Freeman, R., Ikuta, T., Wu, M., Koyanagi, R., Kawashima, T., Tagawa, K., Humphreys, T., Fang, GC., Fujiyama, A., Saiga, H., Lowe, C., Worley, K., Jenkins, J., Schmutz, J., Kirschner, M., Rokhsar, D., Satoh, N., and Gerhart, J. (2012) Identical genomic organization of two hemichordate hox clusters. , **Curr Biol.** , 22 , 2053 - 2058
- 2 . Huang, X., Kurata, N., Wei, X., Wang, ZX., Wang, A., Zhao, Q., Zhao, Y., Liu, K., Lu, H., Li, W., Guo, Y., Lu, Y., Zhou, C., Fan, D., Weng, Q., Zhu, C., Huang, T., Zhang, L., Wang, Y., Feng, L., Furuumi, H., Kubo, T., Miyabayashi, T., Yuan, X., Xu, Q., Dong, G., Zhan, Q., Li, C., Fujiyama, A., Toyoda, A., Lu, T., Feng, Q., Qian, Q., Li, J., and Han, B. (2012) A map of rice genome variation reveals the origin of cultivated rice. , **Nature** , 490 , 497 - 501
- 3 . Kagoshima, H., Kito, K., Aizu, T., Shin-I, T., Kanda, H., Kobayashi, S., Toyoda, A., Fujiyama, A., Kohara, Y., Convey, P., and Niki, H. (2012) Multi-decadal survival of an antarctic nematode, *Plectus murrayi*, in a -20 degree c stored moss sample. , **Cryo Letters** , 33 , 280 - 288
- 4 . Morita, S., Takahashi, R., Yamashita, R., Toyoda, A., Horii, T., Kimura, M., Fujiyama, A., Nakai, K., Tajima, S., Matoba, R., Ochiya, T., and Hatada, I. (2012) Genome-Wide Analysis of DNA Methylation and Expression of MicroRNAs in Breast Cancer Cells , **Int. J. Mol. Sci.** , 13 , 8259 - 8272
- 5 . Hayashida, K., Hara, Y., Abe, T., Yamasaki, C., Toyoda, A., Kosuge, T., Suzuki, Y., Sato, Y., Kawashima, S., Katayama, T., Wakaguri, H., Inoue, N., Homma, K., Tada-Umezaki, M., Yagi, Y., Fujii, Y., Habara, T., Kanehisa, M., Watanabe, H., Ito, K., Gojobori, T., Sugawara, H., Imanishi, T., Weir, W., Gardner, M., Pain, A., Shiels, B., Hattori, M., Nene, V., and Sugimoto, C. (2012) Comparative genome analysis of three eukaryotic parasites with differing abilities to transform leukocytes reveals key mediators of theileria-induced leukocyte transformation. , **MBio.** , 3 , e00204 - 12
- 6 . Yamaguchi, A., Tanaka, S., Yamaguchi, S., Kuwahara, H., Takamura, C., Imajoh-Ohmi, S., Horikawa, DD., Toyoda, A., Katayama, T., Arakawa, K., Fujiyama, A., Kubo, T., and Kunieda, T. (2012) Two novel heat-soluble protein families abundantly expressed in an anhydrobiotic tardigrade , **PLoS One.** , 7 , e44209 -
- 7 . Morita, A., Nakahira, K., Hasegawa, T., Uchida, K., Taniguchi, Y., Takeda, S., Toyoda, A., Sakaki, Y., Shimada, A., Takeda, H. and Yanagihara, I. (2012) Establishment and characterization of Roberts syndrome and SC phocomelia model medaka (*Oryzias latipes*). , **Dev Growth Differ.** , 54 , 588 - 604
- 8 . Hirakawa, H., Tsuchimoto, S., Sakai, H., Nakayama, S., Fujishiro, T., Kishida, Y., Kohara, M., Watanabe, A., Yamada, M., Aizu, T., Toyoda, A., Fujiyama, A., Tabata, S.,

- Fukui, K., and Sato, S. (2012) Upgraded genomic information of *Jatropha curcas* L. , **Plant Biotechnology** , 29 , 123 - 130
- 9 . Kim, RN., Kim, DS., Choi, SH., Yoon, BH., Kang, A., Nam, SH., Kim, DW., Kim, JJ., Ha, JH., Toyoda, A., Fujiyama, A., Kim, A., Kim, MY., Park, KH., Lee, KS. and Park, HS. (2012) Genome analysis of the domestic dog (korean jindo) by massively parallel sequencing. , **DNA Res.** , 19 , 275 - 288
- 10 . Nakamura, S., Watakabe, I., Nishimura, T., Picard, J.Y., Toyoda, A., Taniguchi, Y., di Clemente, N. and Tanaka, M. (2012) Hyperproliferation of mitotically active germ cells due to defective anti-Mullerian hormone signaling mediates sex reversal in medaka. , **Development.** , 139 , 2283 - 2287
- 11 . Moriyama, Y., Kawanishi, T., Nakamura, R., Tsukahara, T., Sumiyama, K., Suster, ML., Kawakami, K., Toyoda, A., Fujiyama, A., Yasuoka, Y., Nagao, Y., Sawatari, E., Shimizu, A., Wakamatsu, Y., Hibi, M., Taira, M., Okabe, M., Naruse, K., Hashimoto, H., Shimada, A., and Takeda, H. (2012) The Medaka *zic1/zic4* Mutant Provides Molecular Insights into Teleost Caudal Fin Evolution. , **Curr Biol.** , 22 , 601 - 607
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- 13 . Nakamura, S., Watakabe, I., Nishimura, T., Toyoda, A., Taniguchi, Y., and Tanaka, M. (2011) Analysis of Medaka *sox9* Orthologue Reveals a Conserved Role in Germ Cell Maintenance. , **PLoS One** , 7 , e29982 - e29982
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- 15 . Izutsu, M., Zhou, J., Sugiyama, Y., Nishimura, O., Aizu, T., Toyoda, A., Fujiyama, A., Agata, K., and Fuse, N. (2011) Genome features of "dark-fly", a *Drosophila* line reared long-term in a dark environment. , **PLoS One.** , 7 , e33288 -
- 16 . Murtagh, V.J., O'Meally, D., Sankovic, N., Delbridge, M.L., Kuroki, Y., Boore, J.L., Toyoda, A., Jordan, K.S., Pask, A.J., Renfree, M.B., Fujiyama, A., Graves, J.A., and Waters, P.D. (2011) Evolutionary history of novel genes on the tammar wallaby Y chromosome: Implications for sex chromosome evolution. , **Genome Res.** , 22 , 498 - 507
- 17 . Dang, Z., Yagi, K., Oku, Y., Kouguchi, H., Kajino, K., Matsumoto, J., Nakao, R., Wakaguri, H., Toyoda, A., Yin, H., and Sugimoto, C. (2011) A Pilot Study on Developing Mucosal Vaccine against Alveolar Echinococcosis (AE) Using Recombinant Tetraspanin 3: Vaccine Efficacy and Immunology. , **PLoS Negl Trop Dis.** , 6 , e1570 -
- 18 . Tsukahara, S., Kawabe, A., Kobayashi, A., Ito, T., Aizu, T., Shin-I, T., Toyoda, A., Fujiyama, A., Tarutani, Y., and Kakutani, T. (2012) Centromere-targeted de novo integrations of an LTR retrotransposon of *Arabidopsis lyrata*. , **Genes Dev.** , 26 , 705 - 713

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H. STRUCTURAL BIOLOGY CENTER
H-a. Biological Macromolecules

H. STRUCTURAL BIOLOGY CENTER
H-a. Biological Macromolecules
Kazuhiro Maeshima

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Takata, H, Nishijima, H., Maeshima, K., Shibahara, KI., (2011) The integrator complex is required for the integrity of Cajal bodies , **Journal of Cell Science** , 125 , 166 - 175
- 2 . Hihara, S., Pack, C.G., Kaizu, K., Tani, T., Hanafusa, T., Nozaki, T., Takemoto, S., Yoshimi, T., Yokota, H., Imamoto, N., Sako, Y., Kinjo, M., Takahashi, K., Nagai, T., Maeshima, K. (2012) Local Nucleosome Dynamics Facilitate Chromatin Accessibility in Living Mammalian Cells. , **Cell Reports** , 2 , 1645 - 1656
- 3 . Joti, Y., Hikima, T., Nishino, Y., kamada, F., Hihara, S., Takata, H., Ishikawa, T., Maeshima, K. (2012) Chromosomes without a 30-nm chromatin fiber. , **Nucleus** , 3 , 404 - 410
- 4 . Nishino, Y, Eltsov, M, Joti, Y, Ito, K, Takata, H, Takahashi, Y, Hihara, S, Frangakis, AS, Imamoto, N, Ishikawa, T, Maeshima K. (2012) Human mitotic chromosomes consist predominantly of irregularly folded nucleosome fibres without a 30-nm chromatin structure. , **EMBO J.** , 31 , 1644 - 1653

ORAL PRESENTATION

- 1 . 前島一博 1本の長いゲノムDNAはどのようにして染色体の中に折り畳まれているのか？ 第60回医薬会セミナー 国立国際医療研究センター 3/30
- 2 . Kazuhiro Maeshima How is a long strand of DNA organized in the cells? Seminar @ University of Geneva Switzerland 12/20
- 3 . Kazuhiro Maeshima How is a long strand of DNA organized in the cells Seminar @ Curie Institute France 12/18
- 4 . Kazuhiro Maeshima How is a long strand of DNA organized in the cells? Seminar @Département Biologie Cellulaire et Infections Pasteur Institute, France 12/18
- 5 . Kazuhiro Maeshima How is a long strand of DNA organized in the cells? Molecular and Computational Biology Colloquium University of Southern California, CA 11/28
- 6 . Kazuhiro Maeshima How is a Long Strand of genomic DNA Organized into a Nucleus or Chromosome? The 114th iCeMS Seminar, Kyoto University iCeMS Kyoto Kyoto
- 7 . 前島一博 1本の長いゲノムDNAはどのようにして細胞核や染色体の中に折り畳まれているのか？ 京都大学生命科学研究セミナー 京都大学生命科学研究科、京都 8/9
- 8 . 前島一博 生細胞内におけるヒトゲノムのダイナミクス 山田科学振興財団 2012年度研究交歓会 成果発表会 東京コンファレンスセンター品川 6/2
- 9 . 前島一博 Chromatin compaction protects genome DNA from radiation damage 筑波大学セミナー 筑波大学 5/1

POSTER PRESENTATIONS

- 1 . Kazuhiro Maeshima 「 How is a long strand of DNA organized in the cells 」, Lorentz Center Workshop “Genome Mechanics at the Nuclear Scale” , Leiden, Netherlands , 12/10-12/14
- 2 . Kazuhiro Maeshima 「 How is a long strand of DNA organized in the cells? 」, 13th Japanese-American Kavli Frontiers of Science Symposium , Irvine, CA , 11/29-12/3
- 3 . Kazuhiro Maeshima 「 Human genome organization and dynamics 」, Paradigm Innovation in Biology , Academia Sinica, Taipei , 10/16-19
- 4 . Kazuhiro Maeshima 「 Human genome organization and dynamics 」, 第50 回日本生物物理学会年会 シンポジウム , 名古屋 , 9/22-9/24
- 5 . 前島一博 「 分裂期染色体におけるDNAの収納 」, 日本人類遺伝学会 第19回臨床細胞遺伝学セミナー , 東京慈恵会医科大学 , 8/25

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H. STRUCTURAL BIOLOGY CENTER
H-d. Biomolecular Structure Laboratory

H. STRUCTURAL BIOLOGY CENTER
H-d. Biomolecular Structure Laboratory
Yasuo Shirakihara

RESEARCH ACTIVITIES

POSTER PRESENTATIONS

1. Shirakihara, Y., Tanikawa, H. & Murakami, S 「 Crystallization of ATP synthase 」, 生物物理学会50回年会, 名古屋, 9/22
2. Itou, H., Yagura, M., Itoh, T., Shirakihara, Y 「 Structure analysis of the DNA-binding domain of ColE2-Rep in complex with the replication origin 」, A joint meeting of the Asian Crystallographic Association, Society of Crystallographers in Australia and New Zealand, Adelaide, 12/2-5
3. 伊藤啓、矢倉勝、伊藤建夫、白木原康雄 「複製開始因子ColE2-Rep DNA結合領域と複製開始点との複合体の結晶構造解析: プライマーゼ活性を持つユニークなRepタンパク質による特異的ori認識ならびに2本鎖DNA解裂機構の構造学的研究」, 第35回日本分子生物学会年会, 福岡, 12/11-14
4. 伊藤啓、矢倉勝、伊藤建夫、白木原康雄 「複製開始因子ColE2-Repによる複製開始点の認識ならびに2本鎖開裂機構の構造学的研究」, 日本結晶学会2012年年会, 宮城県仙台市, 10/25-26

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H. STRUCTURAL BIOLOGY CENTER
H-e. Gene Network Laboratory

H. STRUCTURAL BIOLOGY CENTER
H-e. Gene Network Laboratory
Emiko Suzuki

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

1. Iijima-Ando, K., Sekiya, M., Maruko-Otake, A., Ohtake, Y., Suzuki, E., Lu B., and Iijima, K.M. (2012) Loss of Axonal Mitochondria Promotes Tau-Mediated Neurodegeneration and Alzheimer's Disease-Related Tau Phosphorylation Via PAR-1. , **PLoS Genetics** , 8 , e1002918 -
2. Kurusu, M., Katsuki, T., Zinn, K., and Suzuki, E. (2012) Developmental changes in expression, subcellular distribution, and function of Drosophila N-cadherin, guided by a cell-intrinsic program during neuronal differentiation. , **Developmental Biology** , 366 , 204 - 217
3. Suzuki, E., Masai, I., and Inoue, H. (2011) Phosphoinositide Metabolism in Drosophila Phototransduction: A Coffee Break Discussion Leads to 30 Years of History. , **J Neurogenet** , 26 , 34 - 42
4. Tanaka, N., Suzuki, E., Louis, D., Ejima, A., and Stopfer, M. (2012) Dye fills reveal additional olfactory tracts in the protocerebrum of wild-type Drosophila. , **J Comp Neurol.** , 520 , 4131 - 4140

POSTER PRESENTATIONS

1. Atsushi Sugie, Satoko Hakeda-Suzuki, Emiko Suzuki, Gaia Tavosanis and Takashi Suzuki 「 Activity-dependent synaptic remodeling in the Drosophila photoreceptor neurons 」, ショウジョウバエ研究会JDRC10, 東京, 10/15
2. 堺谷祐太, 野村朋子, 松浦愛子, 伊藤麻紀子, 鈴木えみ子, 村上耕介, 灘野大太, 松田幹, 古川鋼一, 岡島徹也 「 新規O-GlcNAc転移酵素の基質認識と生物学的役割 」, 第31回日本糖質学会年会, 鹿児島, 9/17-20
3. 高野敏行, 鈴木えみ子 「 ショウジョウバエ複眼サイズの変異メカニズム 」, 日本遺伝学会第84回大会, 福岡, 9/24-26
4. Yuri Kobayashi, Mitsuhiko Kurusu, Emiko Suzuki. 「 ショウジョウバエFGFシグナルによる後シナプス分化の制御 」, 第35回日本神経科学大会, 名古屋, 9/18-21
5. Yuri Kobayashi, Mitsuhiko Kurusu, and Emiko Suzuki. 「 FGF signaling regulates post synaptic development in the *Drosophila* neuromuscular junction. 」, The 10th Japanese Drosophila Research Conference, 東京, 10/13-15
6. Tomoko Yamakawa, Yu Atsumi, Shiori Kubo, Takeshi Sasamura, Naotaka Nakazawa, Emiko Suzuki, Mark E. Fortini and Kenji Matsuno. 「 Drosophila pecanex activates Notch signaling via unfolded protein response (UPR). 」, The Notch Meeting, Athens Greece, 9/30-10/3
7. Tomoko Yamakawa, Kenta Yamada, Takeshi Sasamura, Naotaka Nakazawa, Maiko

Kanai, Emiko Suzuki, Mark E. Fortini, and Kenji Matsuno. 「 Function of a neurogenic gene, pecanex in Notch signaling. 」, The 53rd Annual Drosophila Research Conference , Chicago USA , 3/7-3/11

8 . Tomoko Yamakawa, Kenta Yamada, Takeshi Sasamura, Naotaka Nakazawa, Maiko Kanai, Emiko Suzuki, Mark E. Fortini, and Kenji Matsuno. 「 Function of a neurogenic gene, pecanex in Notch signaling. 」, 第45回日本発生生物学会大会・第64回日本細胞生物学会合同大会 , 兵庫 , 5/28-5/31

9 . Tomoko Yamakawa, Takeshi Sasamura, Naotaka Nakazawa, Emiko Suzuki, Mark E. Fortini, Kenji Matsuno. 「 Drosophila pecanex activates Notch signaling via unfolded protein response (UPR). 」, 第35回日本分子生物学会年会 , 福岡 , 12/11-12/14

10 . 杉江淳、羽毛田聡子、鈴木えみ子、Gaia Tavosanis,鈴木崇之 「 神経活動依存的な中枢シナプス構造のリモデリング 」, 第35回日本分子生物学会年会 , 福岡 , 12/11

11 . 中山実、鈴木えみ子、浜千尋 「 ショウジョウバエのシナプス間隙タンパク質Higの局在を制御する新規因子の解析 」, 第35回日本分子生物学会年会 , 福岡 , 12/11-12/14

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H. STRUCTURAL BIOLOGY CENTER
H-f. Multicellular Organization Laboratory

H. STRUCTURAL BIOLOGY CENTER
H-f. Multicellular Organization Laboratory
Hitoshi Sawa

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Shibata, Y., Uchida, M., Takeshita, H., Nishiwaki, K. & Sawa, H. (2012) Multiple functions ofPBRM-1/Polybromo- and LET-526/Osa-containing chromatin remodeling complexes in C. elegans development. , **Dev. Biol.** , , 349 - 357
- 2 . Sawa H. (2012) Control of Cell Polarity and Asymmetric Division in C. elegans. , **Current Topic in Developmental Biology** , , 55 - 76
- 3 . Sugioka K. & Sawa H. (2012) Formation and functions of asymmetric microtubule organization in polarized cells. , **Current Opinion in Cell Biology** , , 517 - 525

ORAL PRESENTATION

- 1 . 伊原伸治 基底膜の穴のサイズに破綻をきたした変異体の確立 アステラス病態代謝研究会 東京経団連会館 10/10

POSTER PRESENTATIONS

- 1 . 伊原伸治 「細胞移動・浸潤過程を制御する分子の発見と解析」, 第85回日本生化学会大会, 福岡, 12/14
- 2 . Ihara, S., Sherwood D. R., Sawa H. 「 Regulation of hole size in basement membrane during cell invasion in C. elegans. 」, East Asia Worm Meeting. , Taipei , 7/23

OTHERS

- 1 . 伊原伸治 , 2 , 文部科学大臣表彰 平成24年度 若手科学者賞
- 2 . 伊原伸治 , 2 , 日本生化学会 奨励賞
- 3 . 伊原伸治 , 2 , 竹中奨励賞 財団法人アステラス病態代謝研究会
- 4 . 澤 斉 , 3 , 三島市立錦田中学出前授業

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I. CENTER FOR INFORMATION BIOLOGY AND DNA DATA BANK OF JAPAN

I-a. Laboratory for DNA Data Analysis

I. CENTER FOR INFORMATION BIOLOGY AND DNA DATA BANK OF JAPAN

I-a. Laboratory for DNA Data Analysis

Takashi Gojobori

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Hayashida, K., Hara, Y., Abe, T., Yamasaki, C., Gojobori, T., Imanishi, T., Sugimoto, C. et al. (2012) Comparative genome analysis of three eukaryotic parasites with differing abilities of leukocyte transformation reveals key mediators of Theileria-induced leukocyte-transformation , **mBio** , 3 , e00204 - e00212
- 2 . Suzuki IK, Kawasaki T, Gojobori T, Hirata T. (2012) The Temporal Sequence of the Mammalian Neocortical Neurogenetic Program Drives Mediolateral Pattern in the Chick Pallium , **Dev Cell** , 22 , 863 - 870
- 3 . Iwayanagi, T., Miyamoto, S., Konno, T., Mizutani, H., Hirai, T., Shigemoto, Y., Gojobori, T., and Sugawara, H. (2012) TP Atlas: integration and dissemination of advances in Targeted Proteins Research Program (TPRP)—structural biology project phase II in Japan , **J. of Struc. Func. Genomics** , 13 , 145 - 154
- 4 . Anai, Y., Ochi, H., Watanabe, S., Nakagawa, S., Kawamura, M., Gojobori, T., and Nishigaki, K. (2012) Infectious Endogenous Retroviruses in Cats and Emergence of Recombinant Viruses , **J. of Virology** , 86 , 8634 - 8644
- 5 . Kato, S., Matsumoto, A., Yoshimura, K., Katsuk, T., Iwamoto, K., Tusda, Y., Ishio, S., Nakamura, K., Moriwaki, K., Shiroishi, T., Gojobori, T., Yoshimura, H. (2012) Clone identification in Japanese flowering cherry (*Prunus* subgenus *Cerasus*) cultivars using nuclear SSR markers , **Breeding Science** , 62 , 248 - 255
- 6 . Xu, S., Pugach, I., Stoneking, M., Kayser, M., Jin, L. Gojobori, T. (2012) Genetic dating indicates that the Asian-Papuan admixture through Eastern Indonesia corresponds to the Austronesian expansion , **Proc. Natl. Acad. Sci.** , 109 , 4574 - 4579
- 7 . Gough, C., Homma, K., Yamaguchi-Kabata, Y., Shimada, M., Chakraborty, R., Fujii, Y., Iwama, H., Minoshima, S., Sakamoto, S., Sato, Y., Suzuki, Y., Tada-Umezaki, M., Nishikawa, K., Imanishi, T., Gojobori, T. (2012) Prediction of protein-destabilizing polymorphisms by manual curation with protein structure , **PLoS One** , 7 , 1 - 8
- 8 . Martin, B. and Gojobori, T. (2012) GBE Editor's Report , **Genome Biol Evol** , 4 , 1031 - 1032
- 9 . Takeda, J., Yamasaki, C., Murakami, K., Nagai, Y., Sera, M., Hara, Y., Obi, N., Habara, T., Gojobori, T., Imanishi, T. (2012) H-lnvDB in 2013: an omics study platform for human functional gene and transcript discovery , **Nucl. Acids. Res.** , 41 , D915 - D919
- 10 . Kryukov, K., Sumiyama, K., Ieko, K., Gojobori, T., Saitou, N. (2012) A new database (GCD) on genome composition for eukaryote and prokaryote genome sequences and their initial analyses , **Genome Biol Evol.** , 4 , 501 - 512
- 11 . Tomita, Y., Ieko, K., Tamakawa, H., Gojobori, T., Ikushima, S. (2012) Genome and

transcriptome analysis of the food-yeast *Candida utilis*, **PLoS One**, 7, -

12. Nishitani, G., Nagai, S., Hayakawa, S., Kosaka, Y., Sakurada, K., Kamiyama, T., and Gojobori, T. (2012) Multiple plastids collected by the dinoflagellate *dinophysis mitra* through kleptoplastidy, **Applied and Environmental Microbiology**, 78, 813 - 821

13. Taniya, T., Tanaka, S., Yamaguchi-Kabata, Y., Hanaoka, H., Yamasaki, C., Maekawa, H., Barrero, R., Lenhard, B., Datta, M., Shimoyama, M., Bumgarner, R., Chakraborty, R., Hopkinson, I., Jia, L., Hide, W., Auffray, C., Minoshima, S., Imanishi, T., Gojobori, T. (2012) A prioritization analysis of disease association by data-mining of functional annotation of human genes, **Genomics**, 99, 1 - 9

14. Kodama, Y., Mashima, J., Kaminuma, E., Gojobori, T., Ogasawara, O., Takagi, T., Okubo, K., Nakamura, Y. (2012) The DNA Data Bank of Japan launches a new resource, the DDBJ Omics Archive of functional genomics experiments., **Nucleic Acids Res.**, 40, 38 - 42

15. Takenaka, Y., Yamaguchi, A., Tsuruoka, N., Torimura, M., Gojobori, T., Shigeri, Y. (2012) Evolution of bioluminescence in marine planktonic copepods., **Mol Biol Evol.**, In press, -

ORAL PRESENTATION

1. 五條堀 孝 「科学コミュニケーション(5):分子進化研究者を例として」 静岡科学館での講演会 静岡科学館 2/18

2. Takashi Gojobori "Vision from Data-Intensive Life Science: GENOME INFORMATION-ORIENTED SOCIETY" 座談会での講演会 座談会, Taiwan 2/22

3. 五條堀 孝 「ゲノムDNA情報が拓く新しい社会:健康・食料・環境のこれから」 遺伝学講演会「三島サイエンスフォーラム:ゲノムDNA研究の最前線」 日本大学国際関係学部三島駅北口校舎 4/21

4. Takashi Gojobori "The Future of Medical Genomics: Beyond Genome-Wide Association Studies (GWAS) for Disease-sensitive Gene Hunting" Courses of Genomics and Bioinformatics NCKU, Tainan City, Taiwan 12/3

5. Takashi Gojobori "From Computational Biology to Integrative Biology: Asian Initiative" (China-Japan-Korea) Workshop: Genomics, Proteomics, and Bioinformatics with the Asian Perspective National Institute of Genetics, Mishima 12/11

6. 五條堀 孝 「君はプランクトンを見たか? ~最新メタゲノム解析が解き明かす海洋微生物多様性の知られざる世界~」 サイエンス・カフェ23 with日本遺伝学会遺伝学談話会 慶応義塾大学日吉キャンパス 12/25

7. 五條堀 孝 「ゲノムからみた脳の進化~ゲノム情報を考える基礎として~」 千里ライフサイエンス振興財団セミナー「脳と社会」 千里ライフサイエンスセンタービル(大阪府) 12/27

8. Ikeo, K. Overview of tools for NGS data analysis National Cheng Kung University 2012 Autumn Course of Genomics and Bioinformatics National Cheng Kung University, Taiwan 12/6-7

9. Ikeo, K. Data analysis of NGS large-scale genomics data: Genome-transcriptome-cell 九州大学生体防御医学研究所生医研セミナー 九州大学生体防御医学研究所 12/18

10. 池尾 一穂 「バイオインフォマティクス」 上智大学大学院理工学研究科集中講義 上智大学 6/2, 9, 16

POSTER PRESENTATIONS

1. Takashi Gojobori 「"Genome Research with Big Data-How can we make "data driven scientific discovery" possible?-"」, 国際シンポジウム「Genome Research」, 東京, 1/21

2. 五條堀 孝 「「ゲノム情報解析と海洋微生物多様性メタゲノムプロジェクト」」, バイオ研究基盤支援総合センターシンポジウム「ゲノム最前線」, 神奈川県横浜市, 2/20

3. Takashi Gojobori 「"DDBJ and global collaboration in data sharing"」, Graham Cameron Celebratory Symposium, Hinxton, England, 3/26

4. 五條堀 孝 「「原核生物における翻訳開始機構の進化」」, 日本進化学会第14回大会ワークショップ「種(species)とは何なのか? 原核生物での根源的な問い」, 東京都八王子市, 8/21

5. 五條堀 孝 「「生命科学におけるゲノム研究の最前線とビッグデータ問題」"Revolutionary

developments of of genome research in life science: Big data needs big idea"], 日本学術会議学術フォーラム データと発見 , 東京都港区 , 9/10

6 . Takashi Gojobori 「 "Big Data needs Good Tools: Translational Bioinformatics in Cell Innovation Project" 」, TBC 2012/BIOINFO 2012 , Jeju, Korea , 10/15

7 . Takashi Gojobori 「 "Big Data needs Big Ideas: Environmental metagenomics for monitoring dynamic changes of marine microorganism diversity" 」, Symposium "Evolutionary Genomics and Bioinformatics" (ISEGB) , Kaohsiung, Taiwan , 10/21

8 . Takashi Gojobori 「 "Big Data needs Big Ideas: Towards formation of genome information society through biomedical genomics and environmental metagenomics" 」, The 23rd International CODATA Conference "Open Data and Information for a Changing Planet" , Taipei, Taiwan , 10/30

9 . Ikeo,K. 「 Gene duplication and diversity of species 」, 日本地球惑星科学連合2012年度連合大会 , 千葉 , 5/22

10 . Ikeo,K. 「 Computational Tools for NGS Data Analysis 」, Next Generation Sequencing Asia Congress , Singapore , 10/2

EDUCATION

1 . 五條堀 孝 国立遺伝学研究所研究会「ゲノム多様性研究における革新的な知的発見のための戦略～次世代シーケンサーを用いたゲノム多様性研究における今後の課題」 静岡県三島市 3/12

2 . 五條堀 孝 国立遺伝学研究所研究会「人類集団の進化的起源と文化的分化要因～学習戦略による旧人と新人の交代劇に関連して～」 静岡県三島市 4/13

3 . DNA鑑定学会 DNA鑑定学会第5回大会 東京都港区 11/29-11/30

4 . Naruya Saitou, Yoshio Tateno, Takashi Gojobori (China-Japan-Korea) Workshop: Genomics, Proteomics, and Bioinformatics with the Asian Perspective 静岡県三島市 12/11

BOOK

1 . Wang, CC. and Gojobori, T. (2012) Genomic implications of gene dosage imbalance in autosomal trisomy during neural development **New Developments in Down Syndrome Research** 1 - 36

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I. CENTER FOR INFORMATION BIOLOGY AND DNA DATA BANK OF JAPAN

I-b. Laboratory for Gene-Product Informatics

I. CENTER FOR INFORMATION BIOLOGY AND DNA DATA BANK OF JAPAN

I-b. Laboratory for Gene-Product Informatics

Yasukazu Nakamura

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Okubo T, Tsukui T, Maita H, Okamoto S, Oshima K, Fujisawa T, Saito A, Futamata H, Hattori R, Shimomura Y, Haruta S, Morimoto S, Wang Y, Sakai Y, Hattori M, Aizawa S, Nagashima KV, Masuda S, Hattori T, Yamashita A, Bao Z, Hayatsu M, Kajiya-Kanegae H, Yoshinaga I, Sakamoto K, Toyota K, Nakao M, Kohara M, Anda M, Niwa R, Jung-Hwan P, Sameshima-Saito R, Tokuda S, Yamamoto S, Yamamoto S, Yokoyama T, Akutsu T, Nakamura Y, Nakahira-Yanaka Y, Takada Hoshino Y, Hirakawa H, Mitsui H, Terasawa K, Itakura M, Sato S, Ikeda-Ohtsubo W, Sakakura N, Kaminuma E, Minamisawa K. (2012) Complete genome sequence of *Bradyrhizobium* sp. S23321: insights into symbiosis evolution in soil oligotrophs. , **Microbes Environ** , 27 , -
- 2 . Tomato Genome Consortium. (2012) The tomato genome sequence provides insights into fleshy fruit evolution. , **Nature** , , -
- 3 . Iida T, Iida N, Tsutsui Y, Yamao F, Kobayashi T. (2012) RNA interference regulates the cell cycle checkpoint through the RNA export factor, Ptr1, in fission yeast. , **Biochem Biophys Res Commun** , 427 , 143 - 147
- 4 . Kodama Y, Mashima J, Kaminuma E, Gojobori T, Ogasawara O, Takagi T, Okubo K, Nakamura Y (2012) The DNA Data Bank of Japan launches a new resource, the DDBJ Omics Archive of functional genomics experiments , **Nucleic acids research** , 40 , D38 - D42
- 5 . Hakoyama, T., Niimi, K., Yamamoto, T., Isobe, S., Sato, S., Nakamura, Y., Tabata, S., Kumagai, H., Umehara, Y., Brossuleit, K., Petersen, T.R., Sandal, N., Stougaard, J., Udvardi, M.K., Tamaoki, M., Kawaguchi, M., Kouchi, H., Suganuma, N. (2011) The Integral Membrane Protein SEN1 is Required for Symbiotic Nitrogen Fixation in *Lotus japonicus* Nodules. , **Plant and Cell Physiology** , 53 , 225 - 236
- 6 . Karsch-Mizrachi, I., Nakamura, Y., Cochrane, G. on behalf of the International Nucleotide Sequence Database Collaboration (2011) The International Nucleotide Sequence Database Collaboration. , **Nucleic Acids Res.** , 40 , D33 - D37
- 7 . Yonemaru, J., Yamamoto, T., Ebana, K., Nagasaki, H., Yamamoto, E., Shibaya, T., Yano, M. (2012) Genome-Wide Haplotype Changes Produced by Artificial Selection during Modern Rice Breeding in Japan , **PLoS ONE** , 7 , e32982 -

ORAL PRESENTATION

- 1 . Yasukazu Nakamura 新型シーケンサによる生物学へのビッグデータ解析時代の到来
岡山大学資源植物科学研究所 大麦・野生植物資源研究センターセミナー 岡山大学資源植物科学研究所 7/6

2. 中村保一 DRA&DDBJパイプライン 新学術領域「ゲノム支援」情報解析講習会 東京+京都 3/17, 3/24
3. 中村保一 DDBJのサービス紹介 NBDC主催統合データベース講習会:AJACS本郷11 東京 3/2
4. 1 長崎 英樹,1 望月 孝子 DDBJパイプラインによる高速シーケンスデータ解析 統合データベース講習会:AJACS名古屋 名古屋大学 工学部ES館 サテライトラボラトリーES031 7/27
5. 1 長崎 英樹,1 望月 孝子 NIGスパコンを利用したNGSアーカイブ配列再利用とクラウド型解析パイプライン実習 第164回農林交流センターワークショップ 農林水産省農林水産技術会議事務局筑波事務所 情報通信共同利用館(電農館)3階セミナー室 9/7
6. 望月 孝子 DDBJ pipeline 基礎(de novo assembly) 第25回 DDBJing 講習会 in 三島 遺伝研 1/26
7. 中村 保一 DDBJ のNGS 対応 第25回 DDBJing 講習会 in 三島 遺伝研
8. 児玉 悠一 DDBJ Sequence Read Archive(DRA) の紹介 第25回 DDBJing 講習会 in 三島 遺伝研
9. 望月 孝子 DDBJ pipeline 基礎(de novo assembly) 第25回 DDBJing 講習会 in 三島 遺伝研
10. 長崎 英樹 DDBJ pipeline 高次部(galaxy: contig annotation workflow) 第25回 DDBJing 講習会 in 三島 遺伝研
11. 猿橋 智 DDBJ pipeline 高次部(galaxy: 系統樹解析) 第25回 DDBJing 講習会 in 三島 遺伝研
12. 大城戸 利久 NGS 由来アセンブル配列の登録～大量登録システム(MSS) 第25回 DDBJing 講習会 in 三島 遺伝研
13. 中村保一 DRA&DDBJパイプライン 新学術領域研究「ゲノム支援」情報解析講習会 TKP東京駅八重洲カンファレンスセンター 3/17
14. 中村保一 DRA&DDBJパイプライン 新学術領域研究「ゲノム支援」情報解析講習会 TKPガーデンシティ京都 3/24
15. 中村保一 DDBJのサービス紹介 NBDC主催統合データベース講習会:AJACS本郷11 DBCLS 2/10

POSTER PRESENTATIONS

1. Yasukazu Nakamura 「 DNA Data Bank of Japan: trad and new databases 」, Information Sources in Biotechnology: Key Databases for Patenting Biotechnology. A seminar organized by The European Bioinformatics Institute and FCO Science and Innovation Network , Tokyo , 7/24
2. 中村保一 「 NGS由来大量データレポジトリDRAと解析支援パイプラインの提供 」, 理研シンポジウム・データ駆動型生命情報科学の挑戦, 仙台 , 5/9
3. Yasukazu Nakamura 「 Integration of databases for microbes and plants from the viewpoint of (meta-) genomics 」, Joint Conference on Informatics in Biology, Medicine and Pharmacology, Tokyo , 7/24
4. 神沼英里 「 ゲノム情報の集積と園芸研究への利用 」, 平成23年度常緑果樹研究会 , 静岡 ,
5. 望月 孝子,長崎英樹,神沼 英里,大柳一,倉田のり,二河成男,,中村 保一 「 新型シーケンサーアーカイブ配列からの植物DNA多型注釈データベース構築 」, 第53回日本植物生理学会年会 , 京都 , 3/16
6. 望月 孝子,1, 2 長崎 英樹,1 神沼 英里,1 大柳 一,3, 4 清水 徳朗,5 豊田 敦,6 藤山 秋佐夫,6 倉田 のり,3 二河 成男,2 中村 保一1 「 新型シーケンサーアーカイブ配列からのDNA多型統合データベース DNA Polymorphism annotation Database (DNApod) の構築 」, 第35回日本分子生物学会年会 , ,
7. 藤澤 貴智,1 岡本 忍,2 長崎 英樹,1 神沼 英里,1 菅原 秀明,1 内山 郁夫,3 黒川 顕,4 中村 保一1 「 TogoAnnotation: 研究コミュニティのためゲノムアノテーションプラットフォーム構築 」, 第35回日本分子生物学会年会 , ,
8. 清水 徳朗,1 吉岡 照高,1 長崎 英樹,2 神沼 英里,2 豊田 敦,3 藤山 秋佐夫,3 中村 保一2 「 カンキツ11品種の全ゲノム配列解読とSNP多型の検出と検証 」, 第35回日本分子生物学会年会 , ,
9. 神沼 英里,1 藤澤 貴智,1 坂本 直子,1 谷澤 靖洋,1 倉田 のり,1 清水 徳朗,2 中村 保一1 「

遺伝率データベース: 形質関連SNPの注釈情報とPATOアノテーション」, 第35回日本分子生物学会年会, ,

10. 長崎 英樹,1 藤澤 貴智,1 望月 孝子,1 猿橋 智,1 神沼 英里,1 石崎 公庸,2 大和 勝幸,3 河内 孝之,2 中村 保一「DDBJパイプラインによるゼニゴケゲノム解析とゲノムアノテーションデータベースの構築」, 第35回日本分子生物学会年会, ,

11. E. Kaminuma¹, T. Mochizuki¹, H. Nagasaki¹, Y. Kodama¹, S. Saruhashi¹, T. Fujisawa¹, Y. Tanizawa¹, N. Sakamoto¹, K. Okubo¹, T. Takagi¹, N. Kurata², T. Shimizu³ and Y. Nakamura¹「Plant Genome-Phenome Analysis and Integrated Genome Annotation Database: Integration of SNPs using NGS Short Read Archive and Trait Heritability Annotation」, The 7th Korea-Japan Joint Seminar Bioinformatics for Plant Biotechnology, ,

12. 中村保一, 小笠原理, 神沼英里, 高木利久, 大久保公策「DNA Data Bank of Japan ~ 新型シーケンサからのデータ登録・解析 ~」, トーゴの日シンポジウム2012, ,

13. 神沼英里, 望月孝子, 長崎英樹, 児玉悠一, 猿橋智, 大久保公策, 高木利久, 大柳 一, 倉田のり, 清水徳朗, 中村 保一「新型シーケンサのアーカイブ配列と解析パイプライン: 系統間SNP解析を事例として」, 第122回日本育種会講演会ワークショップ06 "育種のための情報解析ツール使い倒し塾", ,

14. Nagasaki, H. et al.「DDBJ Pipeline, a cloud computing based annotation tool for new-generation sequencing data」, NGS現場の会 第2回研究会, ,

15. Yuichi Kodama, Asami Nozaki, Eli Kaminuma, Yasukazu Nakamura, Osamu Ogasawara, Kousaku Okubo and Toshihisa Takagi「Sequence Read Archive: explosive growth of sequencing data」, NGS現場の会 第2回研究会, ,

16. Eli Kaminuma, Takako Mochizuki, Hideki Nagasaki, Takatomo Fujisawa, Satoshi Saruhashi, Yuichi Kodama, Tokurou Shimizu, Atsushi Toyoda, Asao Fujiyama, Nori Kurata, Yasukazu Nakamura「新型シーケンサ・アーカイブ配列を用いたゲノムワイド統合SNPsの形質注釈」, NGS現場の会 第2回研究会, ,

17. 神沼英里, 望月孝子, 長崎英樹, 児玉悠一, 猿橋智, 小笠原理, 高木利久「高速DNAシーケンサ・アーカイブDBとクラウド計算資源利用法」, 第121回日本育種会年会、Breeding Informatics XI 講習会, ,

18. Takako Mochizuki^{1, 2}, Hideki Nagasaki¹, Eli Kaminuma¹, Hajime Ohyanagi^{3, 4}, Nori Kurata³, Naruo Nikoh², Yasukazu Nakamura¹「Annotation analysis and database construction of DNA polymorphisms from NGS raw Archive DB」, 第53回日本植物生理学会年会, ,

19. 神沼英里, 望月孝子, 長崎英樹, 児玉悠一, 猿橋智, 高木利久, 大久保公策, 中村 保一「新型シーケンサ・アーカイブDB と大量配列解析パイプライン」, 第53回日本植物生理学会年会シンポジウム データベース講習会, ,

20. 藤澤貴智、岡本忍、照井敬子、桧原直子、加藤香奈、石井英治、神沼英里、菅原秀明、内山郁夫、黒川顕、中村保一「TogoAnnotation: ゲノムアノテーションリファレンス情報集積システム整備と放線菌アノテーションの試み」, 第6回ゲノム微生物学会, 東京, 3/10

21. Nagasaki, H., Mochizuki, T., Kaminuma, E., Kodama Y., Saruhashi, S., Toshihisa, T., Okubo, K., Nakamura Y.「DDBJ Sequence Read Archive and a cloud-computing based annotation tool for new-generation sequencing data」, The International Plant & Animal Genome XX Conference, San Diego, CA, USA, 1/14

22. Nagasaki, H., Mochizuki, T., Kaminuma, E., Kodama Y., Saruhashi, S., Toshihisa, T., Okubo, K., Nakamura Y.「DDBJ Read Annotation Pipeline: 新型DNAシーケンサ由来配列のクラウド型パイプライン」, 第53回日本植物生理学会年会, 京都, 3/16

23. Yuichi Kodama, Eli Kaminuma, Takako Mochizuki, Hidemasa Bono, Hideaki Sugawara, Toshihisa Takagi, Kousaku Okubo, Yasukazu Nakamura「DDBJ Omics Archive and DDBJ Read Annotation Pipeline」, 13th International MGED Meeting (MGED13), ,

24. 中村保一「生物研究の基盤 データベースとしての DDBJ事業: 継承と変革」, 第49回日本癌治療学会学術集会, 名古屋, 10/27

25. 神沼英里, 望月孝子, 長崎英樹, 児玉悠一, 猿橋智, 小笠原理, 高木利久, 大久保公策, 中村保一「高速DNAシーケンサ・アーカイブDBと クラウド計算資源利用法」, 第121回日本育種会年会、Breeding Informatics XI 講習会, 宇都宮, ,

26. Hideki Nagasaki「DDBJ Read Annotation Pipeline, a cloud computing based annotation tool for new-generation sequencing data」, NIGリトリート2012, 神奈川県 箱根

EDUCATION

1. 中村保一 第25回 DDBJing 講習会 in 三島 三島

BOOK

1. 児玉悠一・福田亜沙美・神沼英里・長崎英樹・望月孝子・中村保一（2012）次世代シーケンサーのデータアーカイブとその周辺サービス 細胞工学 別冊「次世代シーケンサー：目的別アドバンスメソッド」 -

DB SOFT

1. Kaminuma E, Fujisawa T, Tanizawa Y, Sakamoto N, Kurata N, Shimizu T, Nakamura Y, H2DB : A Heritability Database Annotating with Trait-Associated Genomic Loci
<http://tga.nig.ac.jp/h2db/>

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J. CENTER FOR FRONTIER RESEARCH
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Kimura Akatsuki

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

1. Koyama, H., Umeda, T., Nakamura, K., Higuchi, T., and Kimura, A. (2011) A high-resolution shape fitting and simulation demonstrated equatorial cell surface softening during cytokinesis and its promotive role in cytokinesis. , **PLoS ONE** , 7 , e31607 -
2. Hayashi, H., Kimura, K., Kimura, A. (2012) Localized accumulation of tubulin during semi-open mitosis in the *Caenorhabditis elegans* embryo. , **Molecular Biology of the Cell** , 23 , 1688 - 1699
3. Okubo, Y., Sugawara, T., Abe-Koduka, N., Kanno, J., Kimura, A., Saga, Y. (2012) Lfng regulates the synchronized oscillation of the mouse segmentation clock via trans-repression of Notch signaling. , **Nature Communications** , 3 , 1141 -
4. Marshall, M.F., Young, K.D., Swaffer, M., Wood, E., Nurse, P., Kimura, A., Frankel, J., Wallingford, J., Walbot, V., Qu, X., Roeder, A.H.K. (2012) What determines cell size? , **BMC Biology** , 10 , 101 -
5. Niwayama, R., and Kimura, A. (2011) A cellular funicular: a hydrodynamic coupling between the anterior- and posterior-directed cytoplasmic flows. , **Worm** , 1 , 1 - 5

ORAL PRESENTATION

1. Kimura, A. Size scaling and passive forces inside the cell. University of California, San Diego 2/24
2. Kimura, A. Centrosome centration and spindle size scaling in the *C. elegans* embryo. Institut Jacques Monod 11/30

POSTER PRESENTATIONS

1. Sugawara, T., Arai, R., Kimura, A. 「線虫初期胚のクロマチン可動性(流動性)変化の理論的解析」, 定量生物学の会第4回年会, 名古屋, 1/8
2. Kimura, A. 「Cellular Allometry: 線虫 *C. elegans* を用いた紡錘体と染色体のサイズ制御機構」, 定量生物学の会第4回年会, 名古屋, 1/8
3. Kimura, K., Niwayama, R., Kimura, A. 「線虫初期胚におけるmeiotic細胞質流動の駆動メカニズムと役割」, 定量生物学の会第4回年会, 名古屋, 1/8
4. Niwayama, R., Nagao, H., Higuchi, T., Kimura, A. 「データ同化法による線虫胚の細胞質流動の駆動力の空間分布の推定」, 定量生物学の会第4回年会, 名古屋, 1/8
5. Arai, R., Sugawara, T., Kimura, A. 「線虫初期胚核内空間におけるクロマチンモビリティの3次元定量的解析」, 第29回染色体ワークショップ, 仙台, 1/25
6. Hara, Y., Kimura, A. 「The width-length relationship of mitotic spindle in *Caenorhabditis*

- elegans embryonic cells: quantification and implications for the regulatory mechanism], Biophysical Society 56th Annual Meeting , San Diego , 2/29
- 7 . Niwayama, R.,Shinohara, K.,Kimura, A. 「 Hydrodynamics for simple fluid quantitatively describes the flow dynamics in C. elegans one-cell stage embryo 」, Biophysical Society 56th Annual Meeting , San Diego , 2/28
- 8 . Niwayama, R., Nagao, H., ,Higuchi, T.,Kimura, A. 「 データ同化を用いた線虫C. elegansにおける細胞質流動の発生メカニズムの解析 」, 第61回理論応用力学講演会, 東京, 3/8
- 9 . Hayashi,H.,Kimura, K.,Kimura, A. 「 easurements of the dynamics of free tubulin accumulation at the nascent spindle region during semi-open mitosis in the Caenorhabditis elegans embryo. 」, CDB symposium 2012 Quantitative Developmental Biology , 神戸 , 3/26
- 10 . Hara, Y.,Kimura, A. 「 Mechanisms for Regulating Spindle Shape in Caenorhabditis elegans Embryos 」, Microtubules: Structure, Regulation and Functions. , Heidelberg , 5/23
- 11 . Kimura, A.,Hara, Y. 「 A systematic quantification of the width-length relationship of mitotic spindle during embryogenesis of Caenorhabditis elegans. 」, Joint meeting of the 45th annual meeting of the Japanese Society of Developmental Biologists & The 64 the annual meeting of the Japan Society for Cell Biology. , 神戸 , 5/30
- 12 . Kimura, K.,Niwayama, R.,Kimura, A. 「 Quantification and mechanics of meiotic cytoplasmic streaming in C. elegans early embryos. 」, Joint Meeting of The 45th Annual Meeting of JSDB and The 64th Annual Meeting of JSCB Workshop , 神戸 , 5/30
- 13 . Kimura, A. 「 細胞内のスケーリング:中心体の細胞中央への配置と紡錘体の大きさ制御 」, 分子モーター討論会, 東京, 6/7
- 14 . Niwayama, R., Nagao, H., ,Higuchi, T.,Kimura, A. 「 An estimation of intra-cellular force distribution causing cytoplasmic streaming in the C. elegans embryo. 」, 5th East Asia C. elegans Meeting , Taipei , 6/27
- 15 . Kimura, K.,Kimura, A. 「 The role of Rab6 in cortical granule exocytosis in C. elegans early embryos 」, 5th East Asia C. elegans Meeting , Taipei , 6/27
- 16 . Kimura, A. 「 A cellular funicular: one active force generation drives two directional organelle movements. 」, The 50th Annual Meeting of the BSJ. , 名古屋 , 9/22
- 17 . Sugawara, T.,Arai, R.,Kimura, A. 「 Quantitative analyses of chromosome dynamics in C. elegans early embryos. 」, The 50th Annual Meeting of the BSJ , 名古屋 , 9/22
- 18 . Hara, Y.,Kimura, A. 「 Size regulation of mitotic spindle in the C. elegans embryo. 」, International Workshop on Quantitative Biology (IWQB) 2012 , 東京 , 11/22
- 19 . Sugawara, T.,Arai, R.,Kimura, A. 「 細胞核内クロマチンの拡散異常性を引き起こす機構について 」, 定量生物学の会第5回年会 , 東京 , 11/24
- 20 . Niwayama, R., Nagao, H., Higuchi, T.,Kimura, A. 「 データ同化法を用いた線虫C. elegans胚における細胞質流動の駆動力の推定 」, 定量生物学の会第5回年会 , 東京 , 11/24
- 21 . Kimura, K.,Niwayama, R.,Kimura, A. 「 線虫初期胚における 線虫初期胚における meiotic細胞質流動の集団的な動きを生むメカニズム解析 」, 定量生物学の会第5回年会 , 東京 , 11/24
- 22 . Kimura, K. 「 線虫C. elegansの受精卵を再構築するオルガネラ動態の解析 」, 国立遺伝学研究所研究集会「生殖とオルガネラ:細胞質における遺伝情報の次世代への伝達・分配」 , 三島 , 11/30
- 23 . Arai, R., Sugawara, T., Nabeshima, K., Kimura, H., Kimura, A. 「 線虫初期発生過程におけるクロマチン動態変化の3次元的定量解析 」, 第35回日本分子生物学会 , 福岡 , 12/11
- 24 . Kimura, A. 「 Allometric Scaling in the Mitotic Spindle. 」, 2012 ASCB Annual Meeting. Special Interest Subgroup E. Building the Cell , San Francisco , 12/15
- 25 . Niwayama, R.,Nagao, H.,Higuchi, T.,Kimura, A. 「 Estimation of forces driving a cytoplasmic flow in the C. elegans embryo using data assimilation. 」, 2012 ASCB Annual Meeting , San Francisco , 12/17
- 26 . Arai, R.,Sugawara, T.,Nabeshima, K.,Kimura, H.,Kimura, A. 「 クロマチン動態変化を指標とした核内構成化メカニズムの解析 」, 第30回染色体ワークショップ・第11回核ダイナミクス研究会 , 淡路島 , 12/19

- 1 . Kimura, A., Kobayashi, T., Sugimura, K., Suzuki, T., Takagi, H. Tsukada, Y., Hiroi, N., Funahashi, A. 定量生物学の会第4回年会 名古屋 1/8-9
- 2 . Mochizuki, A., Miura, T., Kimura, A., Sugimura, A. Workshop (4a, on Systems biology) Joint meeting of the 45th annual meeting of the Japanese Society of Developmental Biologists & The 64 the annual meeting of the Japan Society for Cell Biology. 神戸 5/30
- 3 . Wu, Y.-C., Kimura, A., Lee, S.-J., Yang, C., Hilliard, M., Chow, K.L., Chen, C.-S. 5th East Asia C. elegans Meeting. Taipei 6/27-30
- 4 . Kobayashi, T., Draviam, V.M., Kimura, A., Hiroi, N., Funahashi, A., Suetsugu, Y., Kasai, R., Arai, Y., Tsukada, Y., Irie, N., Kimura, H., Carlton, P., Kalay, Z. International Workshop on Quantitative Biology (IWQB) 2012. 東京 11/22
- 5 . Kimura, A., Kobayashi, T., Hiroi, N., Funahashi, A., Kamimura A. 定量生物学の会第5回年会 東京 11/23-25

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J. CENTER FOR FRONTIER RESEARCH
J-d. Motor Neural Circuit Laboratory

J. CENTER FOR FRONTIER RESEARCH
J-d. Motor Neural Circuit Laboratory
Hiromi Hirata

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

1. Hirata, H., Wen, H., Kawakami, Y., Naganawa, Y., Ogino, K., Yamada, K., Saint-Amant, L., Low, S. E., Cui, W. W., Zhou, W., Sprague, S. M., Asakawa, K., Muto, A., Kawakami, K. and Kuwada, J. Y. (2012) Connexin 39.9 Protein Is Necessary for Coordinated Activation of Slow-twitch Muscle and Normal Behavior in Zebrafish. , **J. Biol. Chem.** , 287 , 1080 - 1089

ORAL PRESENTATION

1. 平田普三 Clustering of Na channels at axon initial segments. NIG Retreat 2012 箱根プリンスホテル(箱根) 4/24

POSTER PRESENTATIONS

1. 平田普三、ファ・ウェン、川上裕、長縄由里子、荻野一豊、山田健太、ルイ・セントアマン、ショーン・ロー、ウィルソン・ツイ、ウェイビン・ジョ、ショーン・スプレイグ、浅川和秀、武藤彩、川上浩一、ジョン・クワダ 「電気カップリングによる神経出力の補正が安定な運動出力を可能にする」, 第45回日本発生生物学会・第64回日本細胞生物学会合同大会, 神戸, 5/30
2. 平田普三、ファ・ウェン、川上裕、長縄由里子、荻野一豊、山田健太、ルイ・セントアマン、ショーン・ロー、ウィルソン・ツイ、ウェイビン・ジョ、ショーン・スプレイグ、浅川和秀、武藤彩、川上浩一、ジョン・クワダ 「細胞カップリングによる運動出力の補正」, 第83回日本動物学会大会, 大阪, 9/13
3. Hirata, H. 「Slow-twitch and fast-twitch muscle defects in zebrafish.」, Cold Spring Harbor Asia Conference: The 5th Annual Zebrafish Disease Models Meeting. Fishing for Answers: Zebrafish Models of Human Development and Disease, CSH-Asia, Suzhou, China, 4/19

BOOK

1. 平田普三 (2012) グリシン受容体の構造と機能 臨床神経科学 **2012** 1352 - 1354

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1. 平田普三, 2, 平成24年度文部科学大臣表彰(科学技術分野)若手科学者賞

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J. CENTER FOR FRONTIER RESEARCH
J-e. Molecular Function Laboratory

J. CENTER FOR FRONTIER RESEARCH
J-e. Molecular Function Laboratory
Masato Kanemaki

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Watase G.,Takisawa H., and Kanemaki MT. (2012) Mcm10 Plays a Role in Functioning of the Eukaryotic Replicative DNA Helicase, Cdc45-Mcm-GINS , **Current Biology** , 22 , 343 - 349
- 2 . Nishimura K., Ishiai M., Horikawa K., Fukagawa T., Takata M., Takisawa H., Kanemaki MT. (2012) Mcm8 and Mcm9 Form a Complex that Functions in Homologous Recombination Repair Induced by DNA Interstrand Crosslinks , **Molecular Cell** , 47 , 511 - 522

POSTER PRESENTATIONS

- 1 . Kanemaki, M. 「 Mcm8 and Mcm9 form a complex that functions in homologous recombination repair induced by DNA interstrand crosslinks 」, The 8th 3R symposium , Awaji island , 11/25
- 2 . Nishimura K.,Ishiai M.,Horikawa K.,Fukagawa T.,Takata M.,Takisawa H.,Kanemaki M. 「 Mcm8 and Mcm9 Form a Complex that Functions in Homologous Recombination Repair Induced by DNA Interstrand Crosslinks 」, 24th Annual Fanconi Anemia Research Fund Scientific Symposium , Denver, USA , 9/27-30

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J. CENTER FOR FRONTIER RESEARCH
J-g. Symbiosis and cell evolution laboratory

J. CENTER FOR FRONTIER RESEARCH
J-g. Symbiosis and cell evolution laboratory
Shinya Miyagishima

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Yoshida, Y., Miyagishima, S., Kuroiwa, H., and Kuroiwa, T. (2012) The plastid-dividing machinery: formation, constriction and fission. , **Curr. Opin. Plant Biol.** , 15 , 714 - 721
- 2 . Kuroiwa, T., Ohnuma, M., Imoto, Y., Misumi, O., Fujiwara, T., Miyagishima, S., Sumiya, N., and Kuroiwa, H (2012) Lipid droplets of bacteria, algae and fungi and a relationship between their contents and genome sizes as revealed by BODIPY and DAPI staining. , **Cytologia** , 77 , 289 - 299
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- 4 . Miyagishima, S., Suzuki, K., Okazaki, K., and Kabeya, Y. (2012) Expression of the nucleus-encoded chloroplast division genes and proteins regulated by the algal cell cycle , **Mol. Biol. Evol.** , 29 , 2957 - 2970

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- 1 . Miyagishima, S. 「 The coordinating mechanisms of eukaryotic cell and chloroplast proliferation 」, 第28回日本微生物生態学会大会シンポジウム, 豊橋市, 9月22
- 2 . 宮城島 進也 「 オルガネラ分裂から見た細胞内共生と植物細胞の進化 」, 日本植物学会第76回大会シンポジウム, 姫路市, 9/16
- 3 . 中村 真心, 三角 修己, 宮城島 進也 「 *Cyanidioschyzon merolae* を用いた酸化ストレス応答遺伝子の網羅的探索 」, 日本植物学会第76回大会, 姫路, 9/15-9/17
- 4 . 墨谷 暢子, 小林 優介, 三角 修己, 宮城島 進也 「 単細胞紅藻 *Cyanidioschyzon merolae* の遺伝子発現誘導系の開発 」, 日本植物学会第76回大会, 姫路, 9/15~17

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J. CENTER FOR FRONTIER RESEARCH
J-h. Ecological Genetics Laboratory

J. CENTER FOR FRONTIER RESEARCH
J-h. Ecological Genetics Laboratory
Jun Kitano

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Kitano J., Mori, S., and Peichel, C. L. (2011) Reduction of sexual dimorphism in stream-resident forms of threespine stickleback(/*Gasterosteus aculeatus*/L.). , **Journal of Fish Biology** , 80 , 131 - 146
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- 4 . Yoshida, K. and Kitano, J. (2012) The contribution of female meiotic drive to the evolution of neo-sex chromosomes. , **Evolution** , , -

POSTER PRESENTATIONS

- 1 . Kitano, J. 「 Neo-Sex Chromosome Formation and speciation in the Japanese Sticklebacks 」, OBC2012 , 岡崎 , 3/21

BOOK

- 1 . ドルフシュルーター,森誠一・北野潤 共訳 (2012) 適応放散の生態学(ドルフシュルーター著) 適応放散の生態学(ドルフシュルーター著) -
- 2 . 北野潤・河田雅圭 共著 (2012) 第13章「自然選択の直接観察 エコゲノミクス ～遺伝子からみた適応～」 -

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J. CENTER FOR FRONTIER RESEARCH
J-i. Centrosome Biology Laboratory

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Daiju Kitagawa

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1. 北川大樹（2012）中心正体複製の分子機構，生化学，84，119 - 124

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ORAL PRESENTATION

1. Nonomura, K.I. The rice Argonaute promoting germ-cell development and meiosis Seminar in Temasek Life Sciences Laboratory Singapore 12/5
2. 野々村賢一 減数分裂における植物染色体認識の機構解明に向けて 国立遺伝学研究所研究集会「イネ分子遺伝学の夢」 国立遺伝学研究所 11/9
3. 野々村賢一 植物の減数分裂進行を促進するArgonaute蛋白質の解析 国立遺伝学研究所研究集会「生殖とオルガネラ:細胞質における遺伝情報の次世代への伝達・分配」 国立遺伝学研究所 11/30
4. Nonomura, K.I. RNA-binding proteins promoting plant meiosis Seinar in Institute for Sustainable Agriculture Institute for Sustainable Agriculture, Cordoba, Spain 11/15

POSTER PRESENTATIONS

1. Komiya, R., Ohyanagi, H., Niihama, M., Watanabe, T., Tsutsui, Y., Kaminuma, E., Kurata, N. Nonomura, K.I. 「 Biogenesis of small RNAs interacting with rice MEL1, a germ-cell specific AGO protein », Function and production of non-coding RNAs and their regulatory mechanisms, 35th Annual Meeting of Molecular Biology Society of Japan, 福岡, 12/11-14
2. Miyazaki, S., Nonomura, K.I. 「 RNA recognition motif of rice MEL2 regulating transition from mitosis to meiosis binds to U-rich RNA conserved sequence. 」, 第53回日本植物生理学会年会, 京都, 3/16-18
3. Nonomura, K.I. 「 RNA-BINDING PROTEINS PLAY CENTRAL ROLES IN GERMLINE CELLS TO GO THROUGH PREMEIOSIS AND EARLY MEIOSIS IN RICE 」, Plant Reproduction for Food 2012, Melbourne, 2/13-17
4. 野々村賢一 「 RNAを介した植物減数分裂の遺伝的制御機構と細胞間コミュニケーション 」, 日本遺伝学会第84回大会, 福岡, 9/26
5. 小野聖二郎、野々村賢一 「 イネ葯壁内層で特異的に発現する2つの転写因子パラログは減数分裂の進行に重要である 」, 日本育種学会第122回講演会, 京都, 9/15
6. 山木辰一郎、大柳一、山崎将紀、宮林登志江、永口貢、久保貴彦、倉田のり、野々村賢一 「 野生イネ系統群のゲノム種を識別するInDelマーカーの開発 」, 日本育種学会第122回講演会, 京都, 9/15
7. Miyazaki, S., Nonomura, K.I. 「 RNA recognition motif of rice MEL2 regulating transition from mitosis to meiosis binds to U-rich RNA conserved sequence. 」, 第53回 植物生理学会年会, 京都, 3/16-18
8. 小宮怜奈、大柳一、新濱充、渡部聡朗、筒井康博、神沼英里、倉田のり、野々村賢一 「 イネ生殖特異的AGO, MEL1に結合するsmall RNAの生合成経路 」, 日本育種学会2012年秋季大会, 京都市, 9/14-15
9. 宮崎さおり 「 前減数分裂S期への移行に関わるMEL2遺伝子について 」, イネ遺伝学、分

子生物学ワークショップ 2012, 奈良, 7/5-6

EDUCATION

1. 平野博之、野々村賢一 植物の発生・分化とコミュニケーション 日本遺伝学会第84回大会 福岡 9/26
2. 風間智彦、宮城島進也、野々村賢一 生殖とオルガネラ:細胞質における遺伝情報の次世代への伝達・分配 国立遺伝学研究所研究集会 三島 11/30-12/1

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1. 野々村賢一, 1, 日本育種学会幹事

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PUBLICATIONS Papers

1 . Yano,H., Yamamoto-Hino, M., Awano, W., Aoki-Kinoshita, KF., Tsuda-Sakurai, K., Okano, H., and Goto, S. (2012) Identification of proteasome components required for apical localization of chaoptin using functional genomics , **J. Neurogenet.** , 26 , 53 - 63

POSTER PRESENTATIONS

1 . 矢野弘之 「 ショウジョウバエの系統分譲のための施設とシステム 」, 第23回 生物学技術研究会 , 愛知県岡崎市 , 2/16-2/17

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Author	Division/Laboratory
& Niki	F-f Microbial Genetics Laboratory
& Rhind	F-f Microbial Genetics Laboratory
& Webb	F-f Microbial Genetics Laboratory
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Agetsuma, M.	C-c Division of Molecular and Developmental Biology
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Aisaki K	F-b Mammalian Development Laboratory
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Amo, R.	C-c Division of Molecular and Developmental Biology
Anai, Y.	I-a Laboratory for DNA Data Analysis
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Anderson,.Junko	F-b Mammalian Development Laboratory
Ang, K.C.	C-c Division of Molecular and Developmental Biology
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Araki H.	B-b Division of Microbial Genetics
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Asakawa, K.	J-d Motor Neural Circuit Laboratory C-c Division of Molecular and Developmental Biology
Asally, M.	C-c Division of Molecular and Developmental Biology
Asami Nozaki	I-b Laboratory for Gene-Product Informatics
Asanuma, T.	G-a Genetic Informatics Laboratory
Asao Fujiyama	I-b Laboratory for Gene-Product Informatics
Asaoka, M.	C-a Division of Developmental Genetics
Atsushi ,Suzuki.	F-b Mammalian Development Laboratory
Atsushi Toyoda	I-b Laboratory for Gene-Product Informatics
Atsushi,Suzuki.	F-b Mammalian Development Laboratory
Auffray, C.	I-a Laboratory for DNA Data Analysis
Awano, W.	N Technical Section F-g Invertebrate Genetics Laboratory
Bao Z	I-b Laboratory for Gene-Product Informatics
Barrero, R.	I-a Laboratory for DNA Data Analysis
Berg, A.S.	C-c Division of Molecular and Developmental Biology
Blancher, A.	D-a Division of Population Genetics
Blumberg B	F-b Mammalian Development Laboratory
Bochicchio, J.	F-f Microbial Genetics Laboratory
Boore, J.L.	G-c Comparative Genomics Laboratory
Boryck,i A.G.	F-a Mammalian Genetics Laboratory
Breakspear S	F-b Mammalian Development Laboratory
Breitenbach M.	B-a Division of Cytogenetics
Brossuleit, K.	I-b Laboratory for Gene-Product Informatics
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C. L.	J-h Ecological Genetics Laboratory
Canfield, V.A.	C-c Division of Molecular and Developmental Biology
Cerezo, D.	F-g Invertebrate Genetics Laboratory
Ch,rasekher	C-c Division of Molecular and Developmental Biology
Chakraborty, R.	I-a Laboratory for DNA Data Analysis
Chang, Z.K.	C-c Division of Molecular and Developmental Biology
Chapman G	F-b Mammalian Development Laboratory
Chappell VK	F-b Mammalian Development Laboratory

Chee, GJ	G-c Comparative Genomics Laboratory
Cheeseman, I.M	A-a Division of Molecular Genetics
Chen, C.	C-c Division of Molecular and Developmental Biology E-b Division of Agricultural Genetics
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Chen, J.R.	C-c Division of Molecular and Developmental Biology
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Chen, Y.C.	C-c Division of Molecular and Developmental Biology
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Cheng, K.C.	C-c Division of Molecular and Developmental Biology
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Choi, SH.	G-c Comparative Genomics Laboratory
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Chulan,Kwon.	F-b Mammalian Development Laboratory
Conquet F	F-b Mammalian Development Laboratory
Conquet, F.	E-c Division of Brain Function
Convey, P.	G-c Comparative Genomics Laboratory
Cremer, C.	A-a Division of Molecular Genetics
Cui, W.	C-c Division of Molecular and Developmental Biology
Cui, W. W.	J-d Motor Neural Circuit Laboratory
Cui, W.W.	C-c Division of Molecular and Developmental Biology
Dang, Z.	G-c Comparative Genomics Laboratory
Datta, M.	I-a Laboratory for DNA Data Analysis
Daubas, P.	F-a Mammalian Genetics Laboratory
De Graeve	F-g Invertebrate Genetics Laboratory
DeBold, J.F.	F-c Mouse Genomics Resource Laboratory
Debold, J.F.	F-c Mouse Genomics Resource Laboratory
Delbridge, M.L.	G-c Comparative Genomics Laboratory
Dh,e	C-b Division of Neurogenetics
di Clemente	G-c Comparative Genomics Laboratory
Dickson, M.	D-a Division of Population Genetics
Dong, G.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Dormans JP	F-b Mammalian Development Laboratory
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Ebana, K.	I-b Laboratory for Gene-Product Informatics
Ebihara, A.	G-a Genetic Informatics Laboratory
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Edo, J.	D-a Division of Population Genetics
Eiguchi M	E-b Division of Agricultural Genetics
Eiguchi, M.	F-e Plant Genetics Laboratory
Ejima, A.	H-e Gene Network Laboratory
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Emiko Suzuiki.	H-e Gene Network Laboratory
Emiko Suzuki	H-e Gene Network Laboratory
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Feng, Q.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Ferris, P.	J-g Symbiosis and cell evolution laboratory
Forejt, J.	F-a Mammalian Genetics Laboratory
Frangakis, AS	H-a Biological Macromolecules
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Fujii, Y.	G-c Comparative Genomics Laboratory I-a Laboratory for DNA Data Analysis
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Fujisawa, H.	F-e Plant Genetics Laboratory
Fujishiro, T.	G-c Comparative Genomics Laboratory
Fujita, M.	F-e Plant Genetics Laboratory
Fujiwara, H.	E-e Division of Human Genetics
Fujiwara, T.	J-g Symbiosis and cell evolution laboratory
Fujiyama A.	E-b Division of Agricultural Genetics F-e Plant Genetics Laboratory
Fujiyama, A.	A-a Division of Molecular Genetics G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics F-e Plant Genetics Laboratory
Fukagawa T	A-a Division of Molecular Genetics
Fukagawa T.	J-e Molecular Function Laboratory
Fukagawa, T.	A-a Division of Molecular Genetics
Fukuda A.	F-b Mammalian Development Laboratory
Fukuda, R.	C-c Division of Molecular and Developmental Biology
Fukui, H.	C-c Division of Molecular and Developmental Biology
Fukui, K.	G-c Comparative Genomics Laboratory
Furukawa T	F-b Mammalian Development Laboratory
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Futamata H	I-b Laboratory for Gene-Product Informatics

Ganley A.R.	B-a Division of Cytogenetics
Ganley, A.R.	B-a Division of Cytogenetics
Gao, L.	F-e Plant Genetics Laboratory
Gardner, M.	G-c Comparative Genomics Laboratory
Gascoigne, K.E.	A-a Division of Molecular Genetics
Geyer CB	F-b Mammalian Development Laboratory
Ghiglione, C.	F-g Invertebrate Genetics Laboratory
Goicoechea, JL	F-e Plant Genetics Laboratory
Goicoechea, JL.	F-e Plant Genetics Laboratory
Gojobori T	I-b Laboratory for Gene-Product Informatics I-a Laboratory for DNA Data Analysis
Gojobori T.	D-a Division of Population Genetics
Gojobori, T.	G-c Comparative Genomics Laboratory E-c Division of Brain Function I-a Laboratory for DNA Data Analysis
Gojobori,T.	I-a Laboratory for DNA Data Analysis
Gong, H.	C-c Division of Molecular and Developmental Biology
Gong, H.Y.	C-c Division of Molecular and Developmental Biology
Goto, H.	C-b Division of Neurogenetics
Goto, T.	F-c Mouse Genomics Resource Laboratory
Goto,H.	C-b Division of Neurogenetics
Gough, C.	I-a Laboratory for DNA Data Analysis
Graves, J.A.	G-c Comparative Genomics Laboratory
Grimwood, J.	D-a Division of Population Genetics
Guo, Y.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
H. Honda	G-a Genetic Informatics Laboratory
H. Kitazawa	G-a Genetic Informatics Laboratory
H. Nagasaki1	I-b Laboratory for Gene-Product Informatics
HP,. Jamrich	C-b Division of Neurogenetics
Ha, JH.	G-c Comparative Genomics Laboratory
Habara, T.	G-c Comparative Genomics Laboratory I-a Laboratory for DNA Data Analysis
Habermann, F.A.	A-a Division of Molecular Genetics
Habu Y	E-b Division of Agricultural Genetics
Habu, Y.	F-e Plant Genetics Laboratory
Hajime Ohyanagi 3	I-b Laboratory for Gene-Product Informatics
Hakoyama, T.	I-b Laboratory for Gene-Product Informatics
Hamada,.	F-b Mammalian Development Laboratory
Hamaji, T.	J-g Symbiosis and cell evolution laboratory
Han, B.	F-e Plant Genetics Laboratory
Hanafusa, T.	H-a Biological Macromolecules
Hanaoka, H.	I-a Laboratory for DNA Data Analysis
Hara, Y.	J-c Cell Architecture Laboratory G-c Comparative Genomics Laboratory I-a Laboratory for DNA Data Analysis
Haraguchi, T.	B-b Division of Microbial Genetics

Hart, C.	F-f Microbial Genetics Laboratory
Harushima, Y.	F-e Plant Genetics Laboratory
Haruta S	I-b Laboratory for Gene-Product Informatics
Hase, J.V.	A-a Division of Molecular Genetics
Hasegawa K	F-b Mammalian Development Laboratory
Hasegawa, T.	G-c Comparative Genomics Laboratory
Hashimoto, H.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics
Hatae, M.	E-e Division of Human Genetics
Hattori M	I-b Laboratory for Gene-Product Informatics
Hattori R	I-b Laboratory for Gene-Product Informatics
Hattori T	I-b Laboratory for Gene-Product Informatics
Hattori, M.	G-c Comparative Genomics Laboratory
Hayakawa, S.	I-a Laboratory for DNA Data Analysis
Hayashi,H.	J-c Cell Architecture Laboratory
Hayashida, K.	G-c Comparative Genomics Laboratory I-a Laboratory for DNA Data Analysis
Hayatsu M	I-b Laboratory for Gene-Product Informatics
Henry, R.	F-e Plant Genetics Laboratory
Hesham,Sadek.	F-b Mammalian Development Laboratory
Hettiarachchi,N.	D-a Division of Population Genetics
Hibi, M.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics
Hide, W.	I-a Laboratory for DNA Data Analysis
Hideaki Sugawara	I-b Laboratory for Gene-Product Informatics
Hideki Nagasaki	I-b Laboratory for Gene-Product Informatics
Hideki Nagasaki 1	I-b Laboratory for Gene-Product Informatics
Hidemasa Bono	I-b Laboratory for Gene-Product Informatics
Higashijima, S.	C-c Division of Molecular and Developmental Biology
Higashijima, S.I.	C-c Division of Molecular and Developmental Biology
Higashiyama T	E-b Division of Agricultural Genetics
Higo H	E-b Division of Agricultural Genetics
Higo, H.	F-e Plant Genetics Laboratory
Higuchi, T.	J-c Cell Architecture Laboratory
Hihara, S	H-a Biological Macromolecules
Hihara, S.	H-a Biological Macromolecules
Hikima, T.	H-a Biological Macromolecules
Hirai, M.	D-a Division of Population Genetics
Hirai, T.	I-a Laboratory for DNA Data Analysis
Hirakawa H	I-b Laboratory for Gene-Product Informatics
Hirakawa, H.	G-c Comparative Genomics Laboratory
Hirakawa, M.	D-a Division of Population Genetics
Hirano,Y.	B-b Division of Microbial Genetics
Hirata T	F-b Mammalian Development Laboratory

Hirata T.	I-a Laboratory for DNA Data Analysis
Hirata, H.	J-d Motor Neural Circuit Laboratory C-c Division of Molecular and Developmental Biology
Hirata, T.	E-c Division of Brain Function
Hirata, T. Kumada	E-c Division of Brain Function
Hirata. T.	E-c Division of Brain Function
Hiroe,Sugizaki.	F-b Mammalian Development Laboratory
Hiromi, Y	C-a Division of Developmental Genetics
Hiromi, Y.	C-a Division of Developmental Genetics
Hiroshi,Hamada.	F-b Mammalian Development Laboratory
Hishida, R.	C-b Division of Neurogenetics
Hizume K.	B-b Division of Microbial Genetics
Hizume,K.	B-b Division of Microbial Genetics
Hoki, Y.	A-a Division of Molecular Genetics
Homma, K.	G-c Comparative Genomics Laboratory I-a Laboratory for DNA Data Analysis
Homma, Y.	E-e Division of Human Genetics
Hong, L-C.	D-a Division of Population Genetics
Hopkinson, I.	I-a Laboratory for DNA Data Analysis
Hori, T.	A-a Division of Molecular Genetics
Horii, T.	G-c Comparative Genomics Laboratory
Horikawa K.	J-e Molecular Function Laboratory
Horikawa, DD.	G-c Comparative Genomics Laboratory
Horikawa,K.	A-a Division of Molecular Genetics
Horikoshi, N.	A-a Division of Molecular Genetics
Horiuch, Y.	F-e Plant Genetics Laboratory
Hosomichi, K.	E-e Division of Human Genetics
Hosoya, T.	G-a Genetic Informatics Laboratory
Hozak, P.	A-a Division of Molecular Genetics
Hsing, Y.	F-e Plant Genetics Laboratory
Hsu, C.H.	C-c Division of Molecular and Developmental Biology
Huang, P.	C-c Division of Molecular and Developmental Biology
Huang, S.J.	C-c Division of Molecular and Developmental Biology
Huang, T.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Huang, X.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Hughes, S.M.	F-a Mammalian Genetics Laboratory
Humphreys, T.	G-c Comparative Genomics Laboratory
Ide S.	B-a Division of Cytogenetics
Igarashi K	F-b Mammalian Development Laboratory
Igarashi, K.	F-e Plant Genetics Laboratory
Ihara, S.	H-f Multicellular Organization Laboratory
Iida N	I-b Laboratory for Gene-Product Informatics
Iida N.	B-a Division of Cytogenetics
Iida T	I-b Laboratory for Gene-Product Informatics

Iida T.	B-a Division of Cytogenetics
Iijima-Ando,K.	H-e Gene Network Laboratory
Ikeda Y	E-b Division of Agricultural Genetics
Ikeda-Ohtsubo W	I-b Laboratory for Gene-Product Informatics
Ikenaga, T.	C-c Division of Molecular and Developmental Biology
Ikeno E	F-b Mammalian Development Laboratory
Ikeno, K.	A-a Division of Molecular Genetics
Ikeo, K.	D-a Division of Population Genetics
Ikeo,K.	I-a Laboratory for DNA Data Analysis
Ikushima,S.	I-a Laboratory for DNA Data Analysis
Ikuta, T.	G-c Comparative Genomics Laboratory
Imajoh-Ohmi, S.	G-c Comparative Genomics Laboratory
Imamoto, N	H-a Biological Macromolecules
Imamoto, N.	H-a Biological Macromolecules
Imanishi, T.	G-c Comparative Genomics Laboratory I-a Laboratory for DNA Data Analysis
Imoto, Y.	J-g Symbiosis and cell evolution laboratory
Inagaki, S.	E-b Division of Agricultural Genetics
Inoue Y	F-b Mammalian Development Laboratory
Inoue, C.	C-c Division of Molecular and Developmental Biology
Inoue, I.	E-e Division of Human Genetics
Inoue, N.	G-c Comparative Genomics Laboratory
Ishiai M.	J-e Molecular Function Laboratory
Ishiai, M.	A-a Division of Molecular Genetics
Ishibashi, M.	F-e Plant Genetics Laboratory
Ishii, A.	F-c Mouse Genomics Resource Laboratory
Ishikawa K	F-b Mammalian Development Laboratory
Ishikawa R	E-b Division of Agricultural Genetics
Ishikawa, A.	J-h Ecological Genetics Laboratory
Ishikawa, R.	F-e Plant Genetics Laboratory
Ishikawa, T	H-a Biological Macromolecules
Ishikawa, T.	H-a Biological Macromolecules
Ishio, S.	I-a Laboratory for DNA Data Analysis
Ishitani, T.	C-c Division of Molecular and Developmental Biology
Isobe, S.	I-b Laboratory for Gene-Product Informatics
Itakura M	I-b Laboratory for Gene-Product Informatics
Itamochi, H.	E-e Division of Human Genetics
Ito T.	E-b Division of Agricultural Genetics
Ito, A.	C-c Division of Molecular and Developmental Biology
Ito, K	H-a Biological Macromolecules
Ito, K.	G-c Comparative Genomics Laboratory
Ito, M.	G-a Genetic Informatics Laboratory
Ito, T.	G-c Comparative Genomics Laboratory E-b Division of Agricultural Genetics
Ito, Y.	F-e Plant Genetics Laboratory
Itoh, T.	G-c Comparative Genomics Laboratory

	H-d Biomolecular Structure Laboratory
Itohara, S.	C-b Division of Neurogenetics
Itohara,S.	C-b Division of Neurogenetics
Itou, H.	H-d Biomolecular Structure Laboratory
Iwama, H.	I-a Laboratory for DNA Data Analysis
Iwama, M.	C-b Division of Neurogenetics
Iwama,M.	C-b Division of Neurogenetics
Iwamoto, K.	I-a Laboratory for DNA Data Analysis
Iwano M	E-b Division of Agricultural Genetics
Iwasato, T.	C-b Division of Neurogenetics
Iwasato,T.	C-b Division of Neurogenetics
Iwase, H.	E-e Division of Human Genetics
Iwata, J.	F-a Mammalian Genetics Laboratory
Iwata, R.	C-b Division of Neurogenetics
Iwata,R.	C-b Division of Neurogenetics
Iwayanagi, T.	I-a Laboratory for DNA Data Analysis
Izutsu, M.	G-c Comparative Genomics Laboratory
J,. Iwasato	C-b Division of Neurogenetics
J. H.	F-a Mammalian Genetics Laboratory
J. Kok	G-a Genetic Informatics Laboratory
J.L.	C-c Division of Molecular and Developmental Biology
J.Y.	C-c Division of Molecular and Developmental Biology
Jenkins, J.	G-c Comparative Genomics Laboratory
Jia, L.	I-a Laboratory for DNA Data Analysis
Jin, L. Gojobori	I-a Laboratory for DNA Data Analysis
Jinam, T.A.	D-a Division of Population Genetics
Jinbo, U.	G-a Genetic Informatics Laboratory
Johnson, S.L.	C-c Division of Molecular and Developmental Biology
Jordan, K.S.	G-c Comparative Genomics Laboratory
Joti, Y	H-a Biological Macromolecules
Joti, Y.	H-a Biological Macromolecules
Jou,in	F-g Invertebrate Genetics Laboratory
Jun K	F-b Mammalian Development Laboratory
Jung-Hwan P	I-b Laboratory for Gene-Product Informatics
Junko,Kurokawa.	F-b Mammalian Development Laboratory
K,Takeuchi.	F-b Mammalian Development Laboratory
K. Okubo1	I-b Laboratory for Gene-Product Informatics
K.C.	C-c Division of Molecular and Developmental Biology
Kabeya, Y.	J-g Symbiosis and cell evolution laboratory
Kagawa, N.	A-a Division of Molecular Genetics
Kageyama R	F-b Mammalian Development Laboratory
Kagoshima, H.	G-c Comparative Genomics Laboratory
Kaizu, K.	H-a Biological Macromolecules
Kajino, K.	G-c Comparative Genomics Laboratory
Kajiya-Kanegae H	I-b Laboratory for Gene-Product Informatics
Kakutani , T.	E-b Division of Agricultural Genetics

Kakutani T	E-b Division of Agricultural Genetics
Kakutani T.	E-b Division of Agricultural Genetics
Kakutani, T.	E-b Division of Agricultural Genetics F-e Plant Genetics Laboratory
kamada, F.	H-a Biological Macromolecules
Kaminuma E	I-b Laboratory for Gene-Product Informatics
Kaminuma, E.	I-b Laboratory for Gene-Product Informatics F-e Plant Genetics Laboratory I-a Laboratory for DNA Data Analysis L EXPERIMENTAL FARM
Kamioka, Y.	D-a Division of Population Genetics
Kamiyama,T.	I-a Laboratory for DNA Data Analysis
Kaname, T.	D-a Division of Population Genetics
Kanata,Hiroshi	F-b Mammalian Development Laboratory
Kanehisa, M.	G-c Comparative Genomics Laboratory
Kaneko, Y.	E-e Division of Human Genetics
Kanemaki M.	J-e Molecular Function Laboratory
Kanemaki MT.	J-e Molecular Function Laboratory
Kanemaki, M.	J-e Molecular Function Laboratory
Kang, A.	G-c Comparative Genomics Laboratory
Kanno J	F-b Mammalian Development Laboratory
Kanno J.	F-b Mammalian Development Laboratory
Kanno.	F-b Mammalian Development Laboratory
Karsch-Mizrachi, I.	I-b Laboratory for Gene-Product Informatics
Kashiwase, K.	E-e Division of Human Genetics
Katabuchi, H.	E-e Division of Human Genetics
Katayama, T.	G-c Comparative Genomics Laboratory
Kato Y	F-b Mammalian Development Laboratory
Kato, S.	I-a Laboratory for DNA Data Analysis
Katsuk, T.	I-a Laboratory for DNA Data Analysis
Katsuki,T.	H-e Gene Network Laboratory
Kawabe, A.	G-c Comparative Genomics Laboratory E-b Division of Agricultural Genetics
Kawaguchi, M.	I-b Laboratory for Gene-Product Informatics
Kawaichi, M.	C-c Division of Molecular and Developmental Biology
Kawakami, K.	G-c Comparative Genomics Laboratory J-d Motor Neural Circuit Laboratory C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics
Kawakami, Y.	E-e Division of Human Genetics J-d Motor Neural Circuit Laboratory C-c Division of Molecular and Developmental Biology
Kawaminami S	F-b Mammalian Development Laboratory
Kawamura, M.	I-a Laboratory for DNA Data Analysis
Kawamura, S.	D-a Division of Population Genetics
Kawanishi, T.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics

Kawasaki T	F-b Mammalian Development Laboratory I-a Laboratory for DNA Data Analysis
Kawasaki, T.	E-c Division of Brain Function F-d Model Fish Genomics Resource
Kawashima, S.	G-c Comparative Genomics Laboratory
Kawashima, T.	G-c Comparative Genomics Laboratory
Kayser, M.	I-a Laboratory for DNA Data Analysis
Kazuhiro Maeshima	H-a Biological Macromolecules
Kenji Matsuno.	H-e Gene Network Laboratory
Kennedy B.K.	B-a Division of Cytogenetics
Kenta Yamada	H-e Gene Network Laboratory
Kikkawa, Y.	F-a Mammalian Genetics Laboratory
Kikusui T.	F-c Mouse Genomics Resource Laboratory
Kim, A.	G-c Comparative Genomics Laboratory
Kim, DS.	G-c Comparative Genomics Laboratory
Kim, DW.	G-c Comparative Genomics Laboratory
Kim, J.	F-c Mouse Genomics Resource Laboratory
Kim, JJ.	G-c Comparative Genomics Laboratory
Kim, MY.	G-c Comparative Genomics Laboratory
Kim, RN.	G-c Comparative Genomics Laboratory
Kimura A	F-b Mammalian Development Laboratory
Kimura, A.	J-c Cell Architecture Laboratory
Kimura, F.	F-e Plant Genetics Laboratory
Kimura, G.	G-a Genetic Informatics Laboratory
Kimura, H.	J-c Cell Architecture Laboratory
Kimura, K.	J-c Cell Architecture Laboratory
Kimura, M.	G-c Comparative Genomics Laboratory
Kimura, R.	D-a Division of Population Genetics
Kimura, T.	F-d Model Fish Genomics Resource
Kimura,H.	B-b Division of Microbial Genetics
Kinjo, M.	H-a Biological Macromolecules
Kinoshita T	E-b Division of Agricultural Genetics
Kinoshita Y	E-b Division of Agricultural Genetics
Kinoshita, M.	C-c Division of Molecular and Developmental Biology
Kirschner, M.	G-c Comparative Genomics Laboratory
Kishida, Y.	G-c Comparative Genomics Laboratory
Kishimoto N	E-b Division of Agricultural Genetics
Kishimoto, N.	F-e Plant Genetics Laboratory
Kitajima S	F-b Mammalian Development Laboratory
Kitamura, H.	A-a Division of Molecular Genetics
Kitano J.	J-h Ecological Genetics Laboratory
Kitano, J.	J-h Ecological Genetics Laboratory
Kitano, T.	D-a Division of Population Genetics
Kito, K.	G-c Comparative Genomics Laboratory
Kobayashi A	E-b Division of Agricultural Genetics
Kobayashi A.	E-b Division of Agricultural Genetics
Kobayashi T.	B-a Division of Cytogenetics

	I-b Laboratory for Gene-Product Informatics
Kobayashi, A.	G-c Comparative Genomics Laboratory
Kobayashi, N.	D-a Division of Population Genetics
Kobayashi, S.	G-c Comparative Genomics Laboratory
Kobayashi, T.	B-a Division of Cytogenetics
Kobori, T.	B-b Division of Microbial Genetics
Kodama Y	I-b Laboratory for Gene-Product Informatics
Kodama Y.	I-b Laboratory for Gene-Product Informatics
Kodama, Y.	I-a Laboratory for DNA Data Analysis
Kohara M	I-b Laboratory for Gene-Product Informatics
Kohara, M.	G-c Comparative Genomics Laboratory
Kohara, Y.	G-c Comparative Genomics Laboratory
Kohei, Kanata.	F-b Mammalian Development Laboratory
Koichi Kawakami	C-c Division of Molecular and Developmental Biology
Koide, T.	F-c Mouse Genomics Resource Laboratory
Kojima, Yumiko	F-b Mammalian Development Laboratory
Kokubo H	F-b Mammalian Development Laboratory
Komagata, S.	C-b Division of Neurogenetics
Komeda Y.	B-b Division of Microbial Genetics
Komeda, Y.	B-b Division of Microbial Genetics
Komiya, R.	L EXPERIMENTAL FARM
Kommajosyula, N.	F-f Microbial Genetics Laboratory
Konno, T.	I-a Laboratory for DNA Data Analysis
Kopan R.	F-b Mammalian Development Laboratory
Kosaka, Y.	I-a Laboratory for DNA Data Analysis
Kosuge, T.	G-c Comparative Genomics Laboratory
Kouchi, H.	I-b Laboratory for Gene-Product Informatics
Kouguchi, H.	G-c Comparative Genomics Laboratory
Kousaku Okubo	I-b Laboratory for Gene-Product Informatics
Koyama, H.	J-c Cell Architecture Laboratory
Koyanagi, R.	G-c Comparative Genomics Laboratory
Krasikova A	A-a Division of Molecular Genetics
Kryukov, K.	D-a Division of Population Genetics
Kryukov, K.	D-a Division of Population Genetics I-a Laboratory for DNA Data Analysis
Kubo, T.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Kubota Y.	B-b Division of Microbial Genetics
Kulski, JK.	E-e Division of Human Genetics
Kumada T	F-b Mammalian Development Laboratory
Kumagai, H.	I-b Laboratory for Gene-Product Informatics
Kume, M.	J-h Ecological Genetics Laboratory
Kurata N	I-b Laboratory for Gene-Product Informatics E-b Division of Agricultural Genetics
Kurata, N.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Kurata, N. Nonomura	L EXPERIMENTAL FARM

Kuroiwa, H.	J-g Symbiosis and cell evolution laboratory
Kuroiwa, T.	J-g Symbiosis and cell evolution laboratory
Kurokawa, Hiroe	F-b Mammalian Development Laboratory
Kuroki, Y.	G-c Comparative Genomics Laboratory
Kuroyanagi, Y.	C-c Division of Molecular and Developmental Biology
Kurumizaka, H.	A-a Division of Molecular Genetics
Kurusu, M.	H-e Gene Network Laboratory
Kusuda, R.	C-c Division of Molecular and Developmental Biology
Kusumi K	F-b Mammalian Development Laboratory
Kuwada, J. Y.	J-d Motor Neural Circuit Laboratory
Kuwada, J.	C-c Division of Molecular and Developmental Biology
Kuwada, J.Y.	C-c Division of Molecular and Developmental Biology
Kuwahara, H.	G-c Comparative Genomics Laboratory
Kuwako KI	F-b Mammalian Development Laboratory
Kuwana, M.	E-e Division of Human Genetics
Kwon, Kazuko	F-b Mammalian Development Laboratory
L.S.	F-c Mouse Genomics Resource Laboratory
Lal Pradeep	C-c Division of Molecular and Developmental Biology
Lal, P.	C-c Division of Molecular and Developmental Biology
Lee, KS.	G-c Comparative Genomics Laboratory
Lenhard, B.	Ia Laboratory for DNA Data Analysis
Li, C.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Li, J.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Li, W.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Li, Y.	C-c Division of Molecular and Developmental Biology
Li, Y.H.	C-c Division of Molecular and Developmental Biology
Lin, C.C.	C-c Division of Molecular and Developmental Biology
Lin, C.H.	C-c Division of Molecular and Developmental Biology
Lin, C.Y.	C-c Division of Molecular and Developmental Biology
Liu, K.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Liu, W.	C-c Division of Molecular and Developmental Biology
Louis, D.	H-e Gene Network Laboratory
Low, S.	C-c Division of Molecular and Developmental Biology
Low, S. E.	J-d Motor Neural Circuit Laboratory
Low, S.E.	C-c Division of Molecular and Developmental Biology
Lowe, C.	G-c Comparative Genomics Laboratory
Lu B	H-e Gene Network Laboratory
Lu, H.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Lu, T.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Lu, Y.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory

Luo,W.	C-b Division of Neurogenetics
M,. Itohara	C-b Division of Neurogenetics
M. Kawata	J-h Ecological Genetics Laboratory
M. Kume	J-h Ecological Genetics Laboratory
M.J.	C-c Division of Molecular and Developmental Biology
MB,. Crair	C-b Division of Neurogenetics
MC,.	C-b Division of Neurogenetics
Macdonald, J.	C-c Division of Molecular and Developmental Biology
Maekawa, H.	I-a Laboratory for DNA Data Analysis
Maeshima K.	H-a Biological Macromolecules
Maeshima, K.	H-a Biological Macromolecules
Mahdieh, N.	E-e Division of Human Genetics
Maiko Kanai	H-e Gene Network Laboratory
Maita H	I-b Laboratory for Gene-Product Informatics
Major JA	F-b Mammalian Development Laboratory
Mano, S.	D-a Division of Population Genetics
Mari Hiratani	C-c Division of Molecular and Developmental Biology
Mark E. Fortini	H-e Gene Network Laboratory
Marshall, M.F.	J-c Cell Architecture Laboratory
Martin, B.	I-a Laboratory for DNA Data Analysis
Maruko-Otake,A.	H-e Gene Network Laboratory
Maruyama, EO.	A-a Division of Molecular Genetics
Masai,I.	H-e Gene Network Laboratory
Mashima J	I-b Laboratory for Gene-Product Informatics
Mashima, J.	I-a Laboratory for DNA Data Analysis
Masuda S	I-b Laboratory for Gene-Product Informatics
Masuda, M.	C-c Division of Molecular and Developmental Biology
Masukawa Y	F-b Mammalian Development Laboratory
Masuzaki, H.	E-e Division of Human Genetics
Matoba, R.	G-c Comparative Genomics Laboratory
Matsuda N	F-b Mammalian Development Laboratory
Matsuda S	F-b Mammalian Development Laboratory
Matsuda, M.	C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics
Matsuda, R.	A-a Division of Molecular Genetics
Matsumoto, A.	I-a Laboratory for DNA Data Analysis
Matsumoto, J.	G-c Comparative Genomics Laboratory
Matsumura, N.	E-e Division of Human Genetics
Matsuoka, K.	F-a Mammalian Genetics Laboratory
Matsuoka, S.	C-a Division of Developmental Genetics
Matsushima, Y.	F-a Mammalian Genetics Laboratory
Matsuura, K.	G-a Genetic Informatics Laboratory
Matsuzaki Y	F-b Mammalian Development Laboratory
Mattar MZ	F-b Mammalian Development Laboratory
Mayanagi, K.	A-a Division of Molecular Genetics
Mayasari, N.I.	C-c Division of Molecular and Developmental Biology
McGregor L	F-b Mammalian Development Laboratory

Miczek, K.A.	F-c Mouse Genomics Resource Laboratory
Miczek, K.A. Hwa	F-c Mouse Genomics Resource Laboratory
Mikami, M.	E-e Division of Human Genetics
Milos, P.	F-f Microbial Genetics Laboratory
Minamisawa K.	I-b Laboratory for Gene-Product Informatics
Minoshima, S.	I-a Laboratory for DNA Data Analysis
Misumi, O.	J-g Symbiosis and cell evolution laboratory
Mitsuhiko Kurusu	H-e Gene Network Laboratory
Mitsui H	I-b Laboratory for Gene-Product Informatics
Mitsunaga, S.	E-e Division of Human Genetics
Miura A	E-b Division of Agricultural Genetics
Miura, A.	F-e Plant Genetics Laboratory
Miyabayashi, T.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Miyagi, E.	E-e Division of Human Genetics
Miyagishima, S.	J-g Symbiosis and cell evolution laboratory
Miyake, T.	D-a Division of Population Genetics
Miyamoto, S.	I-a Laboratory for DNA Data Analysis
Miyazaki, M.	F-a Mammalian Genetics Laboratory
Miyazaki, S.	L EXPERIMENTAL FARM
Miyoshi K	F-b Mammalian Development Laboratory
Mizuno, H.	C-b Division of Neurogenetics
Mizuno, R.	D-a Division of Population Genetics
Mizuno,H.	C-b Division of Neurogenetics
Mizutani, H.	I-a Laboratory for DNA Data Analysis
Mizuyo,Kojima.	F-b Mammalian Development Laboratory
Mochizuki, T.	I-b Laboratory for Gene-Product Informatics F-e Plant Genetics Laboratory
Moe,Matsuno	F-b Mammalian Development Laboratory
Mogi, Y.	J-g Symbiosis and cell evolution laboratory
Monteiro, D.C.F.	F-f Microbial Genetics Laboratory
Mori, K.	F-a Mammalian Genetics Laboratory
Mori, S.	J-h Ecological Genetics Laboratory
Mori,T.	J-g Symbiosis and cell evolution laboratory
Morikawa, K.	A-a Division of Molecular Genetics
Morimoto M	F-b Mammalian Development Laboratory
Morimoto S	I-b Laboratory for Gene-Product Informatics
Morita Y	F-b Mammalian Development Laboratory
Morita, A.	G-c Comparative Genomics Laboratory
Morita, S.	G-c Comparative Genomics Laboratory
Moriwaki, K.	I-a Laboratory for DNA Data Analysis
Moriya, C.	F-e Plant Genetics Laboratory
Moriya, T.	E-e Division of Human Genetics
Moriyama N	F-b Mammalian Development Laboratory
Moriyama, T.	C-c Division of Molecular and Developmental Biology
Moriyama, Y.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology

	D-a Division of Population Genetics
Moyon, B.	F-a Mammalian Genetics Laboratory
Mukougawa, K.	C-c Division of Molecular and Developmental Biology
Murakami, K.	I-a Laboratory for DNA Data Analysis
Murtagh, V.J.	G-c Comparative Genomics Laboratory
Muto, A.	J-d Motor Neural Circuit Laboratory C-c Division of Molecular and Developmental Biology
Myers, RM.	D-a Division of Population Genetics
N. Kurata ²	I-b Laboratory for Gene-Product Informatics
N. Sakamoto ¹	I-b Laboratory for Gene-Product Informatics
Nabeshima, K.	J-c Cell Architecture Laboratory
Nadeau, J. H.	F-a Mammalian Genetics Laboratory
Nagai, S.	I-a Laboratory for DNA Data Analysis
Nagai, T.	H-a Biological Macromolecules
Nagai, Y.	I-a Laboratory for DNA Data Analysis
Naganawa, Y.	J-d Motor Neural Circuit Laboratory C-c Division of Molecular and Developmental Biology
Nagao, H.	J-c Cell Architecture Laboratory
Nagao, Y.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics
Nagasaki, H.	I-b Laboratory for Gene-Product Informatics F-e Plant Genetics Laboratory
Nagasaki, H. et al.	I-b Laboratory for Gene-Product Informatics
Nagashima KV	I-b Laboratory for Gene-Product Informatics
Nagata T.	F-e Plant Genetics Laboratory
Nakagawa, K.	F-e Plant Genetics Laboratory
Nakagawa, S.	I-a Laboratory for DNA Data Analysis
Nakahira, K.	G-c Comparative Genomics Laboratory
Nakahira-Yanaka Y	I-b Laboratory for Gene-Product Informatics
Nakai, J.	C-c Division of Molecular and Developmental Biology
Nakai, K.	G-c Comparative Genomics Laboratory
Nakajima Y	F-b Mammalian Development Laboratory
Nakamura Y	I-b Laboratory for Gene-Product Informatics
Nakamura Y.	I-b Laboratory for Gene-Product Informatics
Nakamura, K.	J-c Cell Architecture Laboratory I-a Laboratory for DNA Data Analysis
Nakamura, R.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics
Nakamura, S.	G-c Comparative Genomics Laboratory
Nakamura, Y.	I-b Laboratory for Gene-Product Informatics F-e Plant Genetics Laboratory I-a Laboratory for DNA Data Analysis
Nakanishi, A.	D-a Division of Population Genetics
Nakao M	I-b Laboratory for Gene-Product Informatics
Nakao, R.	G-c Comparative Genomics Laboratory
Nakao, Y.	F-a Mammalian Genetics Laboratory

Nakaoka, H.	E-e Division of Human Genetics
Nakayama, S.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology
Nam, SH.	G-c Comparative Genomics Laboratory
Naotaka Nakazawa	H-e Gene Network Laboratory
Narita, A.	E-e Division of Human Genetics
Naritomi, K.	D-a Division of Population Genetics
Naruo Nikoh2	I-b Laboratory for Gene-Product Informatics
Naruse, K.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics F-d Model Fish Genomics Resource
Nene, V.	G-c Comparative Genomics Laboratory
Newman, E.J.	F-c Mouse Genomics Resource Laboratory
Niihama,M.	L EXPERIMENTAL FARM
Niikawa, N.	D-a Division of Population Genetics
Niimi, K.	I-b Laboratory for Gene-Product Informatics
Niki, H.	F-f Microbial Genetics Laboratory
Nishi, A.	F-c Mouse Genomics Resource Laboratory
Nishi, S.	G-c Comparative Genomics Laboratory
Nishida, N.	D-a Division of Population Genetics
Nishihara, H.	D-a Division of Population Genetics
Nishijima, H.	H-a Biological Macromolecules
Nishikawa, K.	I-a Laboratory for DNA Data Analysis
Nishimura K.	J-e Molecular Function Laboratory
Nishimura, K.	A-a Division of Molecular Genetics
Nishimura, O.	G-c Comparative Genomics Laboratory
Nishimura, T.	G-c Comparative Genomics Laboratory
Nishinakamura R	F-b Mammalian Development Laboratory
Nishino, T.	A-a Division of Molecular Genetics
Nishino, Y	H-a Biological Macromolecules
Nishino, Y.	H-a Biological Macromolecules
Nishitani, G.	I-a Laboratory for DNA Data Analysis
Niwa R	I-b Laboratory for Gene-Product Informatics
Niwayama, R.	J-c Cell Architecture Laboratory
Noecker B	F-b Mammalian Development Laboratory
Nogawa, T.	E-e Division of Human Genetics
Noguchi, H.	G-c Comparative Genomics Laboratory
Nonomura, K.I.	L EXPERIMENTAL FARM
Nori Kurata	I-b Laboratory for Gene-Product Informatics
Nori Kurata3	I-b Laboratory for Gene-Product Informatics
Noselli, S.	F-g Invertebrate Genetics Laboratory
Nozaki, S.	F-f Microbial Genetics Laboratory
Nozaki, T.	H-a Biological Macromolecules
Nozaki,S.	F-f Microbial Genetics Laboratory
Nunoura, T.	G-c Comparative Genomics Laboratory
Nurse, P.	J-c Cell Architecture Laboratory

Nusbaum, C.	F-f Microbial Genetics Laboratory
O'Meally, D.	G-c Comparative Genomics Laboratory
O'Reilly VC	F-b Mammalian Development Laboratory
O.J.	F-f Microbial Genetics Laboratory
OS,. Bhatt	C-b Division of Neurogenetics
Obi, N.	Ia Laboratory for DNA Data Analysis
Ochi, H.	Ia Laboratory for DNA Data Analysis
Ochiya, T.	G-c Comparative Genomics Laboratory
Ogasawara O	Ib Laboratory for Gene-Product Informatics
Ogasawara, O.	Ia Laboratory for DNA Data Analysis
Ogino, K.	J-d Motor Neural Circuit Laboratory C-c Division of Molecular and Developmental Biology
Oguri M	F-b Mammalian Development Laboratory
Ohashi, J.	D-a Division of Population Genetics
Ohkura, M.	C-c Division of Molecular and Developmental Biology
Ohnishi, Y.	G-c Comparative Genomics Laboratory
Ohnuma, M.	J-g Symbiosis and cell evolution laboratory
Ohshima, T.	C-c Division of Molecular and Developmental Biology
Ohtake, Y.	H-e Gene Network Laboratory
Ohyanagi, H.	F-e Plant Genetics Laboratory L EXPERIMENTAL FARM
Oka, M.	C-c Division of Molecular and Developmental Biology
Okabe, M.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics
Okamoto M.	F-b Mammalian Development Laboratory
Okamoto S	Ib Laboratory for Gene-Product Informatics
Okamoto, A.	E-e Division of Human Genetics
Okamoto, H.	C-c Division of Molecular and Developmental Biology
Okamura Y	F-b Mammalian Development Laboratory
Okano H.	F-b Mammalian Development Laboratory
Okano HJ	F-b Mammalian Development Laboratory
Okano, H.	N Technical Section F-g Invertebrate Genetics Laboratory
Okazaki, K.	J-g Symbiosis and cell evolution laboratory
Oku, Y.	G-c Comparative Genomics Laboratory
Okubo K	Ib Laboratory for Gene-Product Informatics
Okubo T	Ib Laboratory for Gene-Product Informatics
Okubo Y	F-b Mammalian Development Laboratory
Okubo, K.	Ib Laboratory for Gene-Product Informatics Ia Laboratory for DNA Data Analysis
Okubo, Y.	J-c Cell Architecture Laboratory
Okudaira, Y.	E-e Division of Human Genetics
Oliveria, A.	F-e Plant Genetics Laboratory
Omoto, K.	D-a Division of Population Genetics
Ono, F.	C-c Division of Molecular and Developmental Biology
Oota, H.	D-a Division of Population Genetics

Osakabe, A.	A-a Division of Molecular Genetics
Osamu Ogasawara	I-b Laboratory for Gene-Product Informatics
Oshima K	I-b Laboratory for Gene-Product Informatics
Osumi N.	F-b Mammalian Development Laboratory
Oyama, T.	A-a Division of Molecular Genetics
P.D.	G-c Comparative Genomics Laboratory
Pack, C.G.	H-a Biological Macromolecules
Pain, A.	G-c Comparative Genomics Laboratory
Pan, X.	C-c Division of Molecular and Developmental Biology
Panaud, O.	F-e Plant Genetics Laboratory
Park, HS.	G-c Comparative Genomics Laboratory
Park,KH.	G-c Comparative Genomics Laboratory
Pask, A.J.	G-c Comparative Genomics Laboratory
Perpelescu, M.	A-a Division of Molecular Genetics
Peter,Anderson.	F-b Mammalian Development Laboratory
Petersen, T.R.	I-b Laboratory for Gene-Product Informatics
Phipps, M.A.	D-a Division of Population Genetics
Picard, J.Y.	G-c Comparative Genomics Laboratory
Pin PH	F-b Mammalian Development Laboratory
Poole A.M.	B-a Division of Cytogenetics
Prieto, E.	B-b Division of Microbial Genetics
Pugach, I.	I-a Laboratory for DNA Data Analysis
Qian, Q.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Qu, X.	J-c Cell Architecture Laboratory
Quadros, I.	F-c Mouse Genomics Resource Laboratory
Quan Wu.	F-b Mammalian Development Laboratory
Quan,Wu.	F-b Mammalian Development Laboratory
R. Kemperman	G-a Genetic Informatics Laboratory
Rabbani, B.	E-e Division of Human Genetics
Regev, A.	F-f Microbial Genetics Laboratory
Reid, K.P.	C-c Division of Molecular and Developmental Biology
Renfree, M.B.	G-c Comparative Genomics Laboratory
Richards E	E-b Division of Agricultural Genetics
Richards, E.	F-e Plant Genetics Laboratory
Rie Saba.	F-b Mammalian Development Laboratory
Rie,Saba	F-b Mammalian Development Laboratory
Rie,Saba.	F-b Mammalian Development Laboratory
Roeder, A.H.K.	J-c Cell Architecture Laboratory
Rokhsar, D.	G-c Comparative Genomics Laboratory
Ruddle, FH.	D-a Division of Population Genetics
Rugen, M.D.	F-f Microbial Genetics Laboratory
Russ, C.	F-f Microbial Genetics Laboratory
S,. Anishchenko	C-b Division of Neurogenetics
S,. Feller	C-b Division of Neurogenetics
S,al	I-b Laboratory for Gene-Product Informatics
S. Mori	J-h Ecological Genetics Laboratory

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Saba R	F-b Mammalian Development Laboratory
Saba,.	F-b Mammalian Development Laboratory
Sada A	F-b Mammalian Development Laboratory
Sadek,.Chulam	F-b Mammalian Development Laboratory
Sado, T.	A-a Division of Molecular Genetics
Saga Y	F-b Mammalian Development Laboratory
Saga Y.	F-b Mammalian Development Laboratory
Saga, Y.	J-c Cell Architecture Laboratory E-c Division of Brain Function
Saga,.Hiroyuki	F-b Mammalian Development Laboratory
Saga,.Jun	F-b Mammalian Development Laboratory
Saga,.Ryuichi	F-b Mammalian Development Laboratory
Saiga, H.	G-c Comparative Genomics Laboratory
Saint-Amant, L.	J-d Motor Neural Circuit Laboratory C-c Division of Molecular and Developmental Biology
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Saito, K.	F-d Model Fish Genomics Resource
Saito, T.	E-e Division of Human Genetics
Saito,Y.M.	C-b Division of Neurogenetics
Saitou,N.	D-a Division of Population Genetics I-a Laboratory for DNA Data Analysis
Saka K.	B-a Division of Cytogenetics
Sakabe M	F-b Mammalian Development Laboratory
Sakagami, M.	C-c Division of Molecular and Developmental Biology
Sakai Y	I-b Laboratory for Gene-Product Informatics
Sakai, C.	F-d Model Fish Genomics Resource
Sakai, H.	G-c Comparative Genomics Laboratory
Sakai, N.	F-d Model Fish Genomics Resource
Sakaki, Y.	G-c Comparative Genomics Laboratory
Sakakura N	I-b Laboratory for Gene-Product Informatics
Sakamoto K	I-b Laboratory for Gene-Product Informatics
Sakamoto N	I-b Laboratory for Gene-Product Informatics
Sakamoto, S.	I-a Laboratory for DNA Data Analysis
Sako, Y.	H-a Biological Macromolecules
Sakurada, K.	I-a Laboratory for DNA Data Analysis
Sameshima-Saito R	I-b Laboratory for Gene-Product Informatics
Sang, H.M.	C-c Division of Molecular and Developmental Biology
Sankovic, N.	G-c Comparative Genomics Laboratory
Saruhashi, S.	I-b Laboratory for Gene-Product Informatics
Sasaki T	E-b Division of Agricultural Genetics
Sasaki, H.	G-c Comparative Genomics Laboratory
Sasaki, T.	D-a Division of Population Genetics F-e Plant Genetics Laboratory
Sato S	I-b Laboratory for Gene-Product Informatics
Sato, S.	I-b Laboratory for Gene-Product Informatics

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Sato, Y.	G-c Comparative Genomics Laboratory I-a Laboratory for DNA Data Analysis
Satoh, N.	G-c Comparative Genomics Laboratory
Satoshi Saruhashi	I-b Laboratory for Gene-Product Informatics
Sawa H.	H-f Multicellular Organization Laboratory
Sawant, A.	C-c Division of Molecular and Developmental Biology
Sawatari, E.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics
Saze H	E-b Division of Agricultural Genetics
Schilit, A.N.	F-c Mouse Genomics Resource Laboratory
Schmutz, J.	G-c Comparative Genomics Laboratory D-a Division of Population Genetics
Seki, H.	E-e Division of Human Genetics
Sekiya, M.	H-e Gene Network Laboratory
Sera, M.	I-a Laboratory for DNA Data Analysis
Shashidhara, L.S.	F-g Invertebrate Genetics Laboratory
Shenton, M.	F-e Plant Genetics Laboratory
Shepherd, D.	F-f Microbial Genetics Laboratory
Sherman, A.	C-c Division of Molecular and Developmental Biology
Sherwood D. R.	H-f Multicellular Organization Laboratory
Shiba, D.	C-c Division of Molecular and Developmental Biology
Shibahara, KI.	H-a Biological Macromolecules
Shibata, M.	C-b Division of Neurogenetics
Shibata, Y.	H-f Multicellular Organization Laboratory
Shibaya, T.	I-b Laboratory for Gene-Product Informatics
Shibuki K.	C-b Division of Neurogenetics
Shidahara, Y.	G-a Genetic Informatics Laboratory
Shiels, B.	G-c Comparative Genomics Laboratory
Shigemizu, D.	E-e Division of Human Genetics
Shigemoto, Y.	I-a Laboratory for DNA Data Analysis
Shigeoka, T.	C-c Division of Molecular and Developmental Biology
Shigeri, Y.	I-a Laboratory for DNA Data Analysis
Shimada, A.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics
Shimada, M.	I-a Laboratory for DNA Data Analysis
Shimamoto, A.	F-c Mouse Genomics Resource Laboratory
Shimizu T	I-b Laboratory for Gene-Product Informatics
Shimizu, A.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics F-e Plant Genetics Laboratory
Shimizu, H.	C-a Division of Developmental Genetics
Shimizu, K.	C-c Division of Molecular and Developmental Biology
Shimizu, N.	C-c Division of Molecular and Developmental Biology
Shimizu, T.	C-c Division of Molecular and Developmental Biology

Shimogori, T.	D-a Division of Population Genetics
Shimomura Y	Ib Laboratory for Gene-Product Informatics
Shimoyama, M.	Ia Laboratory for DNA Data Analysis
Shin-I, T.	G-c Comparative Genomics Laboratory
Shin-i T.	E-b Division of Agricultural Genetics
Shinohara, K.	J-c Cell Architecture Laboratory
Shinoto, A.	C-c Division of Molecular and Developmental Biology
Shinya, M.	F-d Model Fish Genomics Resource
Shiori Kubo	H-e Gene Network Laboratory
Shiraki, T.	C-c Division of Molecular and Developmental Biology
Shirakihara, Y	H-d Biomolecular Structure Laboratory
Shirakihara,Y.	H-d Biomolecular Structure Laboratory
Shiroishi, T.	F-a Mammalian Genetics Laboratory F-c Mouse Genomics Resource Laboratory Ia Laboratory for DNA Data Analysis
Shitara, H.	F-a Mammalian Genetics Laboratory
Shiwa, Y.	F-f Microbial Genetics Laboratory
Sittaramane, V.	C-c Division of Molecular and Developmental Biology
Smith AJ	F-b Mammalian Development Laboratory
Smith, JJ.	D-a Division of Population Genetics
Sparrow DB	F-b Mammalian Development Laboratory
Spiezio, S. H.	F-a Mammalian Genetics Laboratory
Sprague, S.	C-c Division of Molecular and Developmental Biology
Sprague, S. M.	J-d Motor Neural Circuit Laboratory
Sprague, S.M.	C-c Division of Molecular and Developmental Biology
Steinmann, K.E.	F-f Microbial Genetics Laboratory
Stoneking, M.	D-a Division of Population Genetics Ia Laboratory for DNA Data Analysis
Stougaard, J.	Ib Laboratory for Gene-Product Informatics
Stuart, A.	D-a Division of Population Genetics
Sudo, T.	E-e Division of Human Genetics
Suganuma, N.	Ib Laboratory for Gene-Product Informatics
Sugawara T	F-b Mammalian Development Laboratory
Sugawara, H.	G-c Comparative Genomics Laboratory G-a Genetic Informatics Laboratory
Sugawara, T.	J-c Cell Architecture Laboratory
Sugimoto H	F-b Mammalian Development Laboratory
Sugimoto, C. et al.	Ia Laboratory for DNA Data Analysis
Sugimoto, H.	F-c Mouse Genomics Resource Laboratory
Sugiyama, Y.	G-c Comparative Genomics Laboratory
Sugizaki,Mizuyo	F-b Mammalian Development Laboratory
Sumiko,Koshida.	F-b Mammalian Development Laboratory
Sumiya, N.	J-g Symbiosis and cell evolution laboratory
Sumiyama, K.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics
Sumiyama,K.	D-a Division of Population Genetics

	I-a Laboratory for DNA Data Analysis
Susaki D	E-b Division of Agricultural Genetics
Suster, M.	C-c Division of Molecular and Developmental Biology
Suster, M.L.	C-c Division of Molecular and Developmental Biology
Suster, ML.	G-c Comparative Genomics Laboratory D-a Division of Population Genetics
Suto, Y.	D-a Division of Population Genetics
Suwabe, K.	F-e Plant Genetics Laboratory
Suzuki A	F-b Mammalian Development Laboratory
Suzuki IK	I-a Laboratory for DNA Data Analysis
Suzuki, A.	A-a Division of Molecular Genetics
Suzuki, I. K.	E-c Division of Brain Function
Suzuki, I.K.	E-c Division of Brain Function
Suzuki, K.	J-g Symbiosis and cell evolution laboratory
Suzuki, M.	J-g Symbiosis and cell evolution laboratory
Suzuki, Y.	G-c Comparative Genomics Laboratory E-e Division of Human Genetics I-a Laboratory for DNA Data Analysis
Suzuki,A.	C-b Division of Neurogenetics
Suzuki,E.	H-e Gene Network Laboratory
Suzuki-Hirano, A.	D-a Division of Population Genetics
Swaffer, M.	J-c Cell Architecture Laboratory
T., Swindell	C-b Division of Neurogenetics
T. Fujisawa1	I-b Laboratory for Gene-Product Informatics
T. Mochizuki1	I-b Laboratory for Gene-Product Informatics
T. Saito	G-a Genetic Informatics Laboratory
T. Shimizu3	I-b Laboratory for Gene-Product Informatics
T. Takagi1	I-b Laboratory for Gene-Product Informatics
Tabata, S.	G-c Comparative Genomics Laboratory I-b Laboratory for Gene-Product Informatics
Tachiwana, H.	A-a Division of Molecular Genetics
Tada, Y.	F-e Plant Genetics Laboratory
Tada-Umezaki, M.	G-c Comparative Genomics Laboratory I-a Laboratory for DNA Data Analysis
Tagawa, K.	G-c Comparative Genomics Laboratory
Tagiri A	E-b Division of Agricultural Genetics
Tagiri, A.	F-e Plant Genetics Laboratory
Tahir M	E-b Division of Agricultural Genetics
Tahir, M.	F-e Plant Genetics Laboratory
Taira, H.	C-c Division of Molecular and Developmental Biology
Taira, M.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics
Tajbakhsh, S.	F-a Mammalian Genetics Laboratory
Tajima, A.	E-e Division of Human Genetics D-a Division of Population Genetics
Tajima, S.	G-c Comparative Genomics Laboratory

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Takada, H.	F-f Microbial Genetics Laboratory
Takada, S.	C-c Division of Molecular and Developmental Biology
Takada, T.	F-a Mammalian Genetics Laboratory
Takagi T	I-b Laboratory for Gene-Product Informatics
Takagi, T.	I-a Laboratory for DNA Data Analysis
Takahashi M	F-b Mammalian Development Laboratory
Takahashi, A.	F-c Mouse Genomics Resource Laboratory
Takahashi, K.	H-a Biological Macromolecules
Takahashi, M.	D-a Division of Population Genetics
Takahashi, R.	G-c Comparative Genomics Laboratory
Takahashi, Y	H-a Biological Macromolecules
Takahashi, Y.	C-c Division of Molecular and Developmental Biology
Takaki, Y.	G-c Comparative Genomics Laboratory
Takako Mochizuki	I-b Laboratory for Gene-Product Informatics
Takako Mochizuki 1	I-b Laboratory for Gene-Product Informatics
Takami, H.	G-c Comparative Genomics Laboratory
Takamura, C.	G-c Comparative Genomics Laboratory
Takano M	E-b Division of Agricultural Genetics
Takano, M.	E-e Division of Human Genetics F-e Plant Genetics Laboratory
Takano-Shimizu, T.	F-c Mouse Genomics Resource Laboratory
Takashi Gojobori	I-a Laboratory for DNA Data Analysis
Takashima K	E-b Division of Agricultural Genetics
Takashima, K.	F-e Plant Genetics Laboratory
Takata M.	J-e Molecular Function Laboratory
Takata, H	H-a Biological Macromolecules
Takata, H.	H-a Biological Macromolecules
Takata, M.	A-a Division of Molecular Genetics
Takatomo Fujisawa	I-b Laboratory for Gene-Product Informatics
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Takeda, H.	G-c Comparative Genomics Laboratory
Takeda, J.	I-a Laboratory for DNA Data Analysis
Takeda, S.	G-c Comparative Genomics Laboratory
takeda,.	F-b Mammalian Development Laboratory
Takemoto, S.	H-a Biological Macromolecules
Takenaka, Y.	I-a Laboratory for DNA Data Analysis
Takeshi Sasamura	H-e Gene Network Laboratory
Takeshita, H.	H-f Multicellular Organization Laboratory
Takeshita, S.	F-e Plant Genetics Laboratory
Takeuchi, K.	A-a Division of Molecular Genetics
Takeuchi, M.	C-c Division of Molecular and Developmental Biology
Takeuchi.	F-b Mammalian Development Laboratory
Takeyasu,K.	B-b Division of Microbial Genetics
Takisawa H.	J-e Molecular Function Laboratory B-b Division of Microbial Genetics

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Tanaka, M.	G-c Comparative Genomics Laboratory C-b Division of Neurogenetics
Tanaka, S.	G-c Comparative Genomics Laboratory I-a Laboratory for DNA Data Analysis
Tanaka,M.	C-b Division of Neurogenetics
Tanaka,N.	H-e Gene Network Laboratory
Tanaka,S.	B-b Division of Microbial Genetics
Tanave, A.	F-c Mouse Genomics Resource Laboratory
Tanemura K	F-b Mammalian Development Laboratory
Tani, T.	H-a Biological Macromolecules
Taniguchi, Y.	G-c Comparative Genomics Laboratory
Taniya, T.	I-a Laboratory for DNA Data Analysis
Tanizawa Y	I-b Laboratory for Gene-Product Informatics
Taquahashi Y	F-b Mammalian Development Laboratory
Tarutani Y.	E-b Division of Agricultural Genetics
Tarutani, Y.	G-c Comparative Genomics Laboratory
Taya, C.	F-a Mammalian Genetics Laboratory
Taylor, L.	C-c Division of Molecular and Developmental Biology
Terao, Y.	E-e Division of Human Genetics
Terasawa K	I-b Laboratory for Gene-Product Informatics
Tetsushi,Furukawa.	F-b Mammalian Development Laboratory
To. T.	E-b Division of Agricultural Genetics
Tokuda S	I-b Laboratory for Gene-Product Informatics
Tokunaga, K.	G-c Comparative Genomics Laboratory D-a Division of Population Genetics
Tokurou Shimizu	I-b Laboratory for Gene-Product Informatics
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Tomoko Yamakawa	H-e Gene Network Laboratory
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Torimura, M.	I-a Laboratory for DNA Data Analysis
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Totoki, Y.	G-c Comparative Genomics Laboratory
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Tsuchida, H.	F-e Plant Genetics Laboratory
Tsuchimoto, S.	G-c Comparative Genomics Laboratory
Tsuchiya M	F-b Mammalian Development Laboratory
Tsuchiya, R.	G-a Genetic Informatics Laboratory
Tsuda K.	F-e Plant Genetics Laboratory
Tsuda, H.	E-e Division of Human Genetics
Tsuda-Sakurai, K.	N Technical Section F-g Invertebrate Genetics Laboratory
Tsukahara S.	E-b Division of Agricultural Genetics
Tsukahara, S.	G-c Comparative Genomics Laboratory E-b Division of Agricultural Genetics
Tsukahara, T.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics
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Tsunoda, T.	E-e Division of Human Genetics
Tsuruoka, N.	I-a Laboratory for DNA Data Analysis
Tsutsui Y	I-b Laboratory for Gene-Product Informatics
Tsutsui Y.	B-a Division of Cytogenetics
Tsutsui, Y.	L EXPERIMENTAL FARM
Tsutsumi S	F-b Mammalian Development Laboratory
Tusda, Y.	I-a Laboratory for DNA Data Analysis
Uchida, K.	G-c Comparative Genomics Laboratory
Uchida, M.	H-f Multicellular Organization Laboratory
Uchiyama, I.	G-c Comparative Genomics Laboratory
Udagawa, Y.	E-e Division of Human Genetics
Udvardi, M.K.	I-b Laboratory for Gene-Product Informatics
Ueda, R.	F-g Invertebrate Genetics Laboratory
Ugaki M	E-b Division of Agricultural Genetics
Ugaki, M.	F-e Plant Genetics Laboratory
Umeda, T.	J-c Cell Architecture Laboratory
Umehara, Y.	I-b Laboratory for Gene-Product Informatics
Umemori T.	B-b Division of Microbial Genetics
Umemori, T.	B-b Division of Microbial Genetics
Umetsu, K.	D-a Division of Population Genetics
Ushijima, K.	E-e Division of Human Genetics
Van de Bor	F-g Invertebrate Genetics Laboratory
W. Makino	J-h Ecological Genetics Laboratory
Wada, H.	C-c Division of Molecular and Developmental Biology
Wakaguri, H.	G-c Comparative Genomics Laboratory
Wakamatsu, Y.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics
Walbot, V.	J-c Cell Architecture Laboratory
Wallingford, J.	J-c Cell Architecture Laboratory
Wang A.	F-e Plant Genetics Laboratory

Wang Y	I-b Laboratory for Gene-Product Informatics
Wang ZX.	F-e Plant Genetics Laboratory
Wang, A.	G-c Comparative Genomics Laboratory
Wang, CC.	I-a Laboratory for DNA Data Analysis
Wang, W.	F-e Plant Genetics Laboratory
Wang, Y.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Wang, ZX.	G-c Comparative Genomics Laboratory
Watakabe, I.	G-c Comparative Genomics Laboratory
Watanabe K	E-b Division of Agricultural Genetics
Watanabe, A.	G-c Comparative Genomics Laboratory
Watanabe, T.	L EXPERIMENTAL FARM
Watanabe, H.	G-c Comparative Genomics Laboratory
Watanabe, K.	F-e Plant Genetics Laboratory
Watanabe, M.	F-e Plant Genetics Laboratory
Watanabe, S.	I-a Laboratory for DNA Data Analysis
Watanabe, T.	G-c Comparative Genomics Laboratory
Watase G.	J-e Molecular Function Laboratory
Webb, M.E.	F-f Microbial Genetics Laboratory
Wei, X.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Wei-Hao Shang	A-a Division of Molecular Genetics
Weir, W.	G-c Comparative Genomics Laboratory
Wen, H.	J-d Motor Neural Circuit Laboratory C-c Division of Molecular and Developmental Biology
Weng, Q.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Weng, Z.	F-f Microbial Genetics Laboratory
Wentzel, S.M.	C-c Division of Molecular and Developmental Biology
Williams, V.C.	F-a Mammalian Genetics Laboratory
Wing, R.	F-e Plant Genetics Laboratory
Wing, RA.	F-e Plant Genetics Laboratory
Wood, E.	J-c Cell Architecture Laboratory
Worley, K.	G-c Comparative Genomics Laboratory
Wu, J.	C-c Division of Molecular and Developmental Biology
Wu, M.	G-c Comparative Genomics Laboratory
Xu, J.	F-f Microbial Genetics Laboratory
Xu, Q.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Xu, S.	I-a Laboratory for DNA Data Analysis
Y. Kawai	G-a Genetic Informatics Laboratory
Y. Kodama ¹	I-b Laboratory for Gene-Product Informatics
Y. Nakamura ¹	I-b Laboratory for Gene-Product Informatics
Y. Tanizawa ¹	I-b Laboratory for Gene-Product Informatics
Y. Tateno	G-a Genetic Informatics Laboratory
Y. Yamazaki	G-a Genetic Informatics Laboratory
Yagi, K.	G-c Comparative Genomics Laboratory

Yagi, T.	C-b Division of Neurogenetics
Yagi, Y.	G-c Comparative Genomics Laboratory
Yagura M.	B-b Division of Microbial Genetics
Yagura, M.	H-d Biomolecular Structure Laboratory
Yamada, K.	J-d Motor Neural Circuit Laboratory C-c Division of Molecular and Developmental Biology
Yamada, M.	G-c Comparative Genomics Laboratory
Yamaguchi, A.	G-c Comparative Genomics Laboratory I-a Laboratory for DNA Data Analysis
Yamaguchi, S.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology
Yamamoto S	I-b Laboratory for Gene-Product Informatics
Yamamoto, E.	I-b Laboratory for Gene-Product Informatics
Yamamoto, T.	I-b Laboratory for Gene-Product Informatics D-a Division of Population Genetics F-a Mammalian Genetics Laboratory
Yamamoto, Y.	G-c Comparative Genomics Laboratory
Yamamoto-Hino, M.	N Technical Section F-g Invertebrate Genetics Laboratory
Yamanishi E	F-b Mammalian Development Laboratory
Yamao F	I-b Laboratory for Gene-Product Informatics
Yamao F.	B-a Division of Cytogenetics
Yamasaki, C.	G-c Comparative Genomics Laboratory I-a Laboratory for DNA Data Analysis
Yamashita A	I-b Laboratory for Gene-Product Informatics
Yamashita, H.	C-b Division of Neurogenetics
Yamashita, R.	G-c Comparative Genomics Laboratory
Yamasu, K.	C-c Division of Molecular and Developmental Biology
Yamazaki, M.	C-c Division of Molecular and Developmental Biology
Yamazaki, Y.	G-a Genetic Informatics Laboratory
Yanagi, K.	D-a Division of Population Genetics
Yanagihara, I.	G-c Comparative Genomics Laboratory
Yanagisawa, Y.	F-f Microbial Genetics Laboratory
Yano, H.	F-g Invertebrate Genetics Laboratory
Yano, K.	F-e Plant Genetics Laboratory
Yano, M.	I-b Laboratory for Gene-Product Informatics
Yano, T.	C-c Division of Molecular and Developmental Biology
Yano,H.	N Technical Section
Yasukazu Nakamura	I-b Laboratory for Gene-Product Informatics
Yasukazu Nakamura1	I-b Laboratory for Gene-Product Informatics
Yasuoka, Y.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics
Yin, H.	G-c Comparative Genomics Laboratory
Yokota, H.	H-a Biological Macromolecules
Yokoyama T	I-b Laboratory for Gene-Product Informatics
Yokoyama, H.	C-c Division of Molecular and Developmental Biology
Yokoyama, K.	F-e Plant Genetics Laboratory

Yoneda, Y.	C-c Division of Molecular and Developmental Biology
Yonekawa, H.	F-a Mammalian Genetics Laboratory
Yonemaru, J.	I-b Laboratory for Gene-Product Informatics
Yonemura, S.	C-c Division of Molecular and Developmental Biology
Yono, K.	F-e Plant Genetics Laboratory
Yoon, BH.	G-c Comparative Genomics Laboratory
Yoshida, K.	J-h Ecological Genetics Laboratory
Yoshida, Y.	J-g Symbiosis and cell evolution laboratory
Yoshihara, K.	E-e Division of Human Genetics
Yoshikawa, H.	F-f Microbial Genetics Laboratory
Yoshimi, T.	H-a Biological Macromolecules
Yoshimura, H.	I-a Laboratory for DNA Data Analysis
Yoshimura, K.	I-a Laboratory for DNA Data Analysis
Yoshimura,SH.	B-b Division of Microbial Genetics
Yoshinaga I	I-b Laboratory for Gene-Product Informatics
Young, K.D.	J-c Cell Architecture Laboratory
Yu Atsumi	H-e Gene Network Laboratory
Yuan, X.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Yuasa, Y.	C-a Division of Developmental Genetics
Yuichi Kodama	I-b Laboratory for Gene-Product Informatics
Yuika,MORita	F-b Mammalian Development Laboratory
Yuika,Morita.	F-b Mammalian Development Laboratory
Yuko,Tsukahara.	F-b Mammalian Development Laboratory
Yukuto,Yasuhiko	F-b Mammalian Development Laboratory
Yumiko Saga	F-b Mammalian Development Laboratory
Yumiko Saga.	F-b Mammalian Development Laboratory
Yumiko,Saga	F-b Mammalian Development Laboratory
Yumiko,Saga.	F-b Mammalian Development Laboratory
Yuri Kobayashi	H-e Gene Network Laboratory
Yuzuru Kato	F-b Mammalian Development Laboratory
Yuzuru,Kato	F-b Mammalian Development Laboratory
Yuzuru,Kato.	F-b Mammalian Development Laboratory
Zackai EH	F-b Mammalian Development Laboratory
Zhan, Q.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Zhang, L.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Zhang, X.	C-a Division of Developmental Genetics
Zhao, Q.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Zhao, Y.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Zhou, C.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Zhou, J.	G-c Comparative Genomics Laboratory
Zhou, W.	J-d Motor Neural Circuit Laboratory

	C-c Division of Molecular and Developmental Biology
Zhu, C.	G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Zinn,K.	H-e Gene Network Laboratory
Zlotina A	A-a Division of Molecular Genetics

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Biological Symposium

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2012 Stem cell polarity and malignant growth in Drosophila (Cayetano Gonzalez)
- Apr,
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2012 Gamma-actin: Role in regulating microtubule dynamics and mitotic progression (Sela Pouha)
- Apr,
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2012 DNAの無い微生物は存在するか？—その探索の試み (Does a DNA-less microorganism exist on earth?) (大島靖美)(Yasumi Ohshima)
- Apr,
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2012 Designing and developing microdevices powered by motor proteins (Takahiro Nitta)
- May,
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2012 シロイヌナズナの能動的DNA脱メチル化におけるDNA 3' phosphataseの機能 (三木 大介)(Daisuke Miki)
- May,
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2012 Digital image analysis for biologists/生物学者のためのデジタル画像解析入門 (Takeo Katsuki)
- Jun,
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2012 Mechanism to determine cell migration in micro-topographical environments (Hiromi Miyoshi)
- Jun,
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2012 Science is a Social Process (Maoyen Chi)
- Jun,
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2012 Balancing Flexibility and Robustness in Cellular Decision-Making (Tetsuya Kobayashi)
- Jun,
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2012 Neural mechanisms of female sexual preference in medaka, *Oryzias latipes* (Teruhiro Okuyama)
- Jun,
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2012 Establishing the body plan in the Drosophila oocyte: mRNA transport and localised translation (Ilan Davis)
- Jun,
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2012 Chromosome pairing in wheat: a challenge for plant breeders (Pilar Prieto Aranda)
- Jun,
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2012 The Future of our Institute (Takashi Gojobori)

- Jun,
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2012 The mechanisms and roles of the dynamic movements of intracellular organelles in *C. elegans* early embryos (Kenji Kimura)
- Jun,
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2012 Philosophical Aspects of Biology from a Biologist's Viewpoint (Isao Katsura)
- Jun,
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2012 わたくしの研究経歴 (Mitsuhiro Yanagida)(柳田 充弘)
- Jul, 9
2012 Targeting chromosome instability as a potential approach for cancer therapeutics (Taruho Kuroda)
- Jul,
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2012 Liposome division with simple bacterial division machinery (Masaki Osawa)
- Jul,
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2012 Nanos2 maintains mitotic quiescence via suppressing Dazl expression in the mouse male germ cell. (Yuzuru Kato)
- Jul,
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2012 Systematic single-cell analysis of development: worm and beyond (Zhirong Bao)
- Aug,
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2012 Reorganization of the Spindle Pole Body during meiotic differentiation in fission yeast (Midori Ohta)
- Aug,
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2012 Insights into the mechanism of eukaryote speciation (S. Blair Hedges)
- Aug,
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2012 Phylomedicine: Phylogenetics informs Genomic Medicine (Sudhir Kumar)
- Aug,
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2012 Comparative analysis of the Red Sea Microbiome suggests a possible route for adaptation of marine microbial populations to the effects of global warming (John Archer)
- Aug,
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2012 Transcription Factor Binding Site Models: Which One is the Best? (Vladimir Bajic)
- Sep,
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2012 Neural mechanisms for efficient odor avoidance in *C. elegans* (Kotaro Kimura)
- Sep,
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2012 5-HT₃ receptors and nicotinic acetylcholine receptors in zebrafish brains regulate their response to ethanol (Hiromi Ikeda)
- Sep,
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2012 Genetic Studies on Inherited Retinal Degeneration (James S. Friedman)
- Sep,
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2012 Excitatory EphA4 interneurons are important components in the configuration and function of the mammalian locomotor CPG (Lotta Borgius)

- Sep,
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2012 Optogenetic analysis of visually-guided behavior in zebrafish (Fumi Kubo)
- Sep,
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2012 A quarter century of Hedgehog (Philip W. Ingham)
- Sep,
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2012 Reprogramming heterochromatin and its consequences in the germline (Rob Martienssen)
- Sep,
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2012 Understanding the Role of Wnt5a for the Anterior-Posterior Axis Elongation in Mice (Rieko Ajima)
- Sep,
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2012 Analysis of conserved and divergent functions of Pax genes during muscle development and homeostasis (Shinichiro Hayashi)
- Oct,
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2012 Beyond packaging DNA: Histone variants control chromatin activities (Fred Berger)
- Oct,
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2012 Primitive origin of Drosophila epithelial neoplasms (Pradip Sinha)
- Oct,
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2012 People and the planet - how can we all live and flourish on a finite Earth? (John Sulston)
- Oct,
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2012 Stress-Induced Production of Biofuel Precursors in Eukaryotic Algae: Cell and Molecular Biology (Ursula Goodenough)
- Oct,
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2012 Global Stability and the Conservation of Biodiversity (Peter H. Raven)
- Oct,
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2012 Thermal stress-induced nuclear import mediated by Hikeshi: its mechanism and cellular roles (Naoko Imamoto)
- Nov,
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2012 Comethylation (Terry Speed)
- Nov,
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2012 Mechanisms of spindle positioning: from *C. elegans* to human cells (Pierre Gonczy)
- Nov,
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2012 Ca²⁺ ion, activator of Rad51-promoted DNA strand exchange reaction, slows down the dissociation of Rad51/DNA complex and promotes perpendicular orientation of DNA bases (Masayuki Takahashi)
- Nov,
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2012 What determines the shape of mitotic chromosomes (Bill Earnshaw)
- Nov,
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2012 Genome editing in cultured cells and various organisms using engineered nucleases (Takashi Yamamoto)

Nov, 20 2012	Hidden functions of kinetochores: microtubule attachment and beyond (Tomoyuki Tanaka)
Nov, 20 2012	Spontaneous formation of vortex lattice by large number of self-propelled microtubules (Yutaka Sumino)
Nov, 21 2012	Evolution and irreversibility (Antonio Celani)
Nov, 21 2012	Sonic Hedgehog and its transcriptional network control neural tube pattern formation (Noriaki Sasai)
Nov, 22 2012	Coordinating DNA replication with the initiation of recombination in meiosis. (Scott Keeney)
Nov, 27 2012	Roles of N-glycosylation and net-charge of hemagglutinin in influenza virus evolution (Yoshiyuki Suzuki)
Nov, 29 2012	Erroneous progression of replication forks restarted by homologous recombination (Ken'ichi Mizuno)
Dec, 3 2012	How kinetochores orchestrate robust cohesion and early S phase replication at microtubule attachment sites (Toyoaki Natsume)
Dec, 4 2012	TRPM7 is required for synaptic vesicle acidification in zebrafish hair cells (Sean E. Low)
Dec, 6 2012	Klothoが紡いだ生命の糸を解きほぐす (鍋島陽一)(Yoichi Nabeshima)
Dec, 6 2012	Role of transcriptional activators in modulating DNA break repair (Katsunori Sugimoto)
Dec, 17 2012	Identification of a novel genetic network involved in lymphopoiesis through forward genetics using zebrafish (Norimasa Iwanami)
Dec, 17 2012	The effects of speciation, range expansion and the thermal adaptation on species diversity in Cuban Anolis lizards (Masakado Kawata)
Dec, 20 2012	Tissue homeostasis through cell competition and compensatory cellular hypertrophy in postmitotic epithelia (Yoichiro Tamori)
Jan, 17 2013	Adaptive regulation of ecdysone biosynthesis through a “novel” neuronal circuit in Drosophila (Yuko Shimada-Niwa)
Jan, 22 2013	Exploring the sampling universe of RNA-seq (Arndt von Haeseler)

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2013 New Insights into Molecular and Cellular Mechanisms of Blood Development (Georges Lacaud)

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2013 Functional analysis of RCC1's role in mitotic exit. (Maiko Furuta)

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2013 The Arabidopsis RNA-binding motif protein RBM22(AtRBM22) affects seed germination, floral transition and reproductive growth (Hua Liu)

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2013 Genetic analysis of axonal transport in zebrafish (Alex Nechiporuk)

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2013 Wnt signaling regulates multiple aspects of progenitor cell identity and collective cell migration during lateral line organogenesis (Hillary F. McGraw)

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2013 Genetic analysis of non-autonomous tumor progression in Drosophila (Shizue Ohsawa)

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2013 Development of zebrafish genetic tools and their application to study hematopoietic/vascular development (Shuo Lin)

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2013 Olfactory transformations in topographically organized habenular microcircuits (Emre Yaksi)

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2013 The axon terminal of bipolar cells initiates glutamatergic retinal waves (Jiulin Du)

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2013 Cohesin and Pepsinogen-like Novel Regulators of Planar Cell Polarity (Kousuke Mouri)

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2013 How a complex enhancer region contributes to phenotypic robustness and morphological evolution (David Stern)

Mar,
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2013 Stem cells to synapses: regulation of self-renewal and differentiation in the nervous system (Andrea Brand)

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2013 Cilia at the edge of the node of mouse embryos sense fluid flow for left- right determination (Satoko Yoshida)

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2013 Crosstalk of proteostasis and redox homeostasis in the ER (Kazuhiro Nagata)

Mar,
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2013 Genome screen for human variants that influence gut microbiome composition (Andrew G. Clark)

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2013 Systems and Synthetic Biology of Biological Timings (Hiroki R. Ueda)

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2013 Identification of recombination motif in the MHC cynomolgus macaque genome (Antoine Blancher)
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2013 Serial Genomic Rearrangements Revealed Local- and Global-Regulatory Architecture of the Adjacent Developmental Genes Bmp7 and Ap2γ (Taro Tsujimura)
- Mar,
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2013 Towards an Understanding of Schizophrenia Pathophysiology (Kazu Nakazawa)
- Mar,
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2013 The zebrafish as a model for cancer (Marina Mione)
- Mar,
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2013 Exploring the mechanics, structure and dynamics of chromosomes (John F. Marko)
- Mar,
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2013 ゴールドシュミット文庫: その実態と意義 (Goldschmidt Collection: Current Status and Significance) (溝口 元)(Hajime Mizoguchi)
- Mar,
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2013 Two histone kinases regulate the centromeric localization of Aurora B (Yuya Yamagishi)
- Mar,
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2013 バイオインフォマティクスにも潜む情報学的新課題—次元の呪い— (An occult problem in bioinformatics - the curse of dimensionality -) (鈴木郁美)(Ikumi Suzuki)
- Mar,
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2013 Investigation of DNA replication by quantitative proteomics (Takashi Kubota)
- Mar,
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2013 Spatial and temporal control of forebrain development (Corinne Houart)
- Mar,
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2013 Left-right asymmetry of the rodent hippocampus (Yoshiaki Shinohara)

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Foreign Visitors

Apr, 2 2012	Cayetano Gonzalez	Institute for Research in Biomedicine IRB-Barchelona
Apr, 5 2012	Sela Pouha	Children Cancer Institute Australia for Medical Research, Lowy Cancer Research Centre, UNSW
May, 16 2012	Daisuke Miki	Shanghai Institutes for Biological Sciences
May, 23 2012	Takeo Katsuki	Kavli Institute for Brain and Mind, University of California, San Diego.
Jun, 5 2012	Maoyen Chi	Cold Spring Harbor, Asia
Jun, 14 2012	Ilan Davis	Department of Biochemistry, The University of Oxford.
Jun, 20 2012	Pilar Prieto Aranda	Spain National Research Council Institute for Sustainable Agriculture
Jul, 9 2012	Taruho Kuroda	Dana-Faber Cancer Institute Harvard Medical School HHMI
Jul, 11 2012	Masaki Ohsawa	Department of Biology, Duke University Medical Center
Jul, 17 2012	Zhirong Bao	Developmental Biology Program, Sloan-Kettering Institute
Aug, 17 2012	S. Blair Hedges	Department of Biology, Pennsylvania State University
Aug, 17 2012	Sudhir Kumar	Center of Evolutionary Medicine & INformatics Biodesign Institute, Arizona State University
Aug, 31 2012	John Archer	Computational Bioscience Research Center, King Abdallah University of Science and Technology, Kingdom of Saudi Arabia
Aug, 31 2012	Vladimir Bajic	Computational Bioscience Research Center, King Abdallah University of Science and Technology, Kingdom of Saudi Arabia
Sep, 4		National Institute of Alcohol Abuse & Alcoholism National Institute of

2012	Hiromi Ikeda	Health
Sep, 4 2012	James S. Friedman	Department of Ophthalmology, University of Colorado Denver School of Medicine
Sep, 24 2012	Lotta Borgius	Department of Neuroscience Karolinska Institute
Sep, 25 2012	Fumi Kubo	Max Planck Institute of Neurobiology, Germany
Sep, 26 2012	Phillip W. Ingham	A Star Institute of Molecular and Cell Biology, Biopolis, Singapore
Sep, 27 2012	Rob Martienssen	HHMI-GBMF, Cold Spring Harbor Laboratory Cold Spring Harbor NY
Sep, 28 2012	Shinichiro Hayashi	UMR-S787 INSERM-UPMC Paris VI-Institute de Myologie
Oct, 1 2012	Fred Berger	Temasek Life Science Laboratory, National University of Singapore
Oct, 1 2012	Pradip Sinha	Department of Biological Sciences and Bioengineering Indian Institute of Technology, Kanpur
Oct, 10 2012	John Sulston	The Royal Society Working Group
Oct, 15 2012	Ursula Goodenough	Department of Biology, Washington University
Oct, 16 2012	Peter Raven	Missouri Botanical Garden
Nov, 8 2012	Terry Speed	Walter and Eliza Hall Institute of Medical Research, University of Melbourne
Nov, 9 2012	Pierre Gonczy	Swiss Institute for Experimental Cancer Research School of Life Sciences, Swiss Federal Institute of Technology
Nov, 12 2012	Masayuki Takahashi	UMR 6204 CNRS & Universite de Nantes
Nov, 14 2012	Bill Earnshaw	Wellcome Trust Centre for Cell Biology, University of Edinburgh
Nov, 20 2012	Tomoyuki Tanaka	Wellcome Trust Centre of Gene Regulation & Expression, University of Dundee
Nov, 21 2012	Antonio Celani	Institut Pasteur, Directeur de recherche CNRS

Nov, 21 2012	Noriaki Sasai	MRC, National Institute for Medical Research, UK
Nov, 22 2012	Scott Keeny	Memorial Sloan-Kettering Cancer Center
Nov, 29 2012	Ken'ichi Mizuno	Genome Damage and Stability Centre, University of Sussex
Dec, 3 2012	Toyoaki Natsume	Wellcome Trust Centre for Gene Regulation & Expression, College of Life Sciences, University of Dundee
Dec, 4 2012	Sean E. Low	The Rockefeller University and Howard Hughes Medical Institute
Dec, 6 2012	Katsunori Sugimoto	Department of Microbiology & Molecular Genetics, University of Medicine and Dentistry of New Jersey
Dec, 17 2012	Norimasa Iwanami	Max Planck Institute of Immunobiology and Epigenetics
Dec, 20 2012	Yoichiro Tamori	Florida State University
Jan, 22 2013	Arndt von Heaseler	Center for Integrative Bioinformatics Vienna, Austria
Feb, 6 2013	Georges Lacaud	Paterson Institute for Cancer Research, The University of Manchester
Feb, 14 2013	Alex Nechiporuk	Oregon Health & Science University
Feb, 25 2013	Emre Yaksi	Neuro-Electronics Research Flanders (NERF)
Feb, 25 2013	Jiulin Du	Institute of Neuroscience, Chinese Academy of Science
Feb, 25 2013	Shuo Lin	Department of Molecular, Cell and Developmental Biology, UCLA
Feb, 26 2013	David Stern	Janelia Farm, HHMI
Feb, 28 2013	Hillary F. McGraw	Oregon Health & Science University
Mar, 1 2013	Andrea Brand	The Gurdon Institute, University of Cambridge
Mar, 5	Andrew G.	

2013	Clark	Department of Molecular Biology and Genetics, Cornell University
Mar, 6 2013	Antoine Blancher	Lab d' Immunogenetique moleculaire Universite Paul Sabatier, Lab d' Immunologie Hospital de Rangueil
Mar, 7 2013	Taro Tsujimura	Developmental Biology Unit, EMBL Heidelberg
Mar, 8 2013	Kazu Nakazawa	National Institute of Mental Health, NIH
Mar, 18 2013	Marina Mione	Karlsruhe Institute of Technology (KIT)
Mar, 21 2013	John Marko	^F Department of Molecular Biosciences, Northwestern University
Mar, 25 2013	Corinne Houart	MRC Centre for Developmental Neurobiology, King's College London
Mar, 25 2013	Takashi Kubota	Institute of Medical Sciences, University of Aberdeen UK

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