



Research Organization of Information and Systems
National Institute of Genetics

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国立遺伝学研究所

情報・システム研究機構

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No.61
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ANNUAL REPORT

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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 life science. 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, 37 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 suggestion on our research activities and endeavors.

Yuji Kohara, Director-General

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KOHARA, Yuji, D. Sc.

Vice-Director

GOJOBORI, Takashi, D. Sc.

KURATA, Nori, D. Ag., professor

Member

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YAMAO, Fumiaki, D. Sc., Head of the Department

Division of Molecular Genetics

FUKAGAWA, Tatsuo, D. Sc., Professor

HORI, Tetsuya, D. Ag., Assistant Professor

Division of Mutagenesis

YAMAO, Fumiaki, D. Sc., Professor

TSUTSUI, Yasuhiro, D. Med., Assistant Professor

Molecular Mechanism Laboratory

SEINO, Hiroaki, D. Sc., Assistant Professor

Division of Nucleic Acid Chemistry

NATSUME, Tohru, Adjunct Professor (Team Leader, Biomedical Information Research Center, National Institute of Advanced Industrial Science and Technology)

WAI, Kazuhiro, Adjunct Professor (Professor, Graduate School of Frontier Biosciences, Osaka University)

2. Department of Cell Genetics

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

Division of Cytogenetics

KOBAYASHI, Takehiko, D. Sc., Professor

IIDA, Tetsushi, D. Sc., Assistant Professor

Division of Microbial Genetics

ARAKI, Hiroyuki, D. Sc., Professor

TANAKA, Seiji, D. Sc., Assistant Professor

Division of Cytoplasmic Genetics

BOCCARD, Frederic, Adjunct Professor (Directeur de recherche, Centre de Genetique Moleculaire du CNRS)

UEDA, Hiroki, Adjunct Professor (Project Leader, RIKEN Center for Developmental Biology)

3. Department of Developmental Genetics

KAWAKAMI, Koichi, D. Sc., Head of the Department

Division of Developmental Genetics

HIROMI, Yasushi, D. Sc., Professor

SHIMIZU, Hiroshi, D. Eng., Assistant Professor

ASAOKA, Miho, D. Sc., Assistant Professor
HAYASHI, Takashi, D. Sc., Assistant Professor

Division of Gene Expression

IWASATO, Takuji, D. Sc., Professor
MIZUNO, Hidenobu, D. Sc., Assistant Professor

Division of Molecular and Developmental Biology

KAWAKAMI, Koichi, D. Sc., Professor
ASAKAWA, Kazuhide, D. Sc., Assistant Professor

Division of Physiological Genetics

STERN, David L, Adjunct Professor (Professor, Princeton University)
KIMBLE, Judith E, Adjunct Professor (Professor, University of Wisconsin)

4. Department of Population Genetics

SAITOU, Naruya, Ph. D., Head of the Department

Division of Population Genetics

SAITOU, Naruya, Ph. D., Professor
TAKANO, Toshiyuki, D. Sc., Associate Professor
SUMIYAMA, Kenta, D. Sc., Assistant Professor
TAKAHASHI, Aya, D. Ag., Assistant Professor

Division of Evolutionary Genetics

AKASHI, Hiroshi, D. Sc., Professor
OSADA, Naoki, Ph. D., Assistant Professor

Division of Theoretical Genetics

HARTL, Daniel L, Adjunct Professor (Professor, Harvard University)
CLARK, Andrew G, Adjunct Professor (Professor, Cornell University)

5. Department of Integrated Genetics

KAKUTANI, Tetsuji, D. Sc., Head of the Department

Division of Agricultural Genetics

KAKUTANI, Tetsuji, D. Sc., Professor
SAZE, Hidetoshi, Ph.D., Assistant Professor
TARUTANI, Yoshiaki, D.Agr., Assistant Professor

Division of Brain Function

HIRATA, Tatsumi, D. Med., Associate Professor
KAWASAKI, Takahiko, D. Sc., Assistant Professor

Division of Applied Genetics

COLOT, Vincent, Adjunct Professor (Professor, NRA/CNRS/UEVE)
TSUJI, Shoji, Adjunct Professor (Professor, The University of Tokyo Hospital)

6. 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
KOKUBO, Hiroki, D. Sc., Assistant Professor
MORIMOTO, Mitsuru, D. Sc., Assistant Professor

Mouse Genomics Resource Laboratory

KOIDE, Tsuyoshi, D. Med., 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
FURUYA, Kanji, D. Sc., Assistant Professor
Invertebrate Genetics Laboratory
UEDA, Ryu, D. Sc., Professor

7. Center for Genetic Resource Information

SHIROISHI, Toshihiko, D. Sc., Head of the Center
Genetic Informatics Laboratory
YAMAZAKI, Yukiko, D. Sc., Associate Professor
Genomu Biology Laboratory
KOHARA, Yuji, D. Sc., Professor
ANDACHI, Yoshiki, D. Sc., Assistant Professor
Comparative Genomics
FUJIYAMA, Asao, D.Sc., Professor
TOYODA, Atsushi, D.Sc., Associate Professor

8. Structural Biology Center

ARAKI, Hiroyuki, D. Sc., Head of the Center
Laboratory for Biological Macromolecules
MAESHIMA, Kazuhiro, D. Med., Professor
HIRATANI, Ichiro, 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

9. Center for Information Biology and DNA Data Bank of Japan

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
SUZUKI, Yoshiyuki, M. D., Ph. D., Assistant Professor
FUKUCHI, Satoshi, D. Sc., Assistant Professor
Laboratory for Gene-Product Informatics
NAKAMURA, Yasukazu, D. Sc., Professor
KAMINUMA, Eli, D. Eng., Assistant Professor
Laboratory for the Research and Development of Biological Databases
TAKAGI, Toshihisa, D. Eng., Professor
Laboratory for Gene-Expression Analysis
OKUBO, Kousaku, M. D., Ph. D., Professor
OGASAWARA, Osamu, D. Sc., Assistant Professor

10. Center for Frontier Research

KURATA, Nori, D. Ag., Head of the Center
Cell Architecture Laboratory
KIMURA, Akatsuki, D. Sc., Associate Professor

11. Radioisotope Center

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

12. Experimental Farm

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

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

UCHIYAMA, Akira, Head of the Department

MATSUNAGA, Shigeru, Chief of the Research Promotion Section

KATO, Kazuhito, Chief of the Management Project Section

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Advisory committee

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KURATA, Nori; Professor, Genetic Strains Research Center

Vice-chairman

SEKIGUCHI, Mutsuo; Adjunct Professor, Fukuoka Dental College

Outside Members (Alphabetical order)

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; 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)

ARAKI, Hiroyuki; Professor, Department of Cell Genetics

GOJOBORI, Takashi; Professor, Center for Information Biology and DNA Data Bank of Japan

HIROMI, Yasushi; Professor, Department of Developmental Genetics

NIKI, Hironori; Professor, Genetic Strains Research Center

KAKUTANI, Tetsuji; Professor, Department of Integrated Genetics

KAWAKAMI, Koichi; Professor, Department of Developmental Genetics

KURATA, Nori; Professor, Genetic Strains Research Center

OKUBO, Kousaku; Professor, Center for Information Biology and DNA Data Bank of Japan

SAITOU, Naruya; Professor, Department of Population Genetics

SHIROISHI, Toshihiko; Professor, Genetic Strains Research Center

YAMAOKA, Fumiaki; Professor, Department of Molecular Genetics

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ADVISORY BOARD

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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-a	Division of Population Genetics	Toshiyuki Takano
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-d	Laboratory for Research and Development of Biological Databases	Hideaki Sugawara
I-e	Laboratory for Gene-Expression Analysis	Kousaku Okubo

J-c	Cell Architecture Laboratory	Kimura Akatsuki
J-d	Motor Neural Circuit Laboratory	Hiroshi 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 . Schmidt, J.C., Kiyomitsu, T., Hori, T., Backer, C.B., Fukagawa, T., and Cheeseman, I.M. (2010) Aurora B kinase controls the targeting of the Astrin/SKAP complex to bi-oriented kinetochores , **J. Cell Biol.** , 191 , 269 - 280
- 2 . Liu, D., Vleugel, M., Backer, C.B., Hori, T., Fukagawa, T., Cheeseman, I.M., and Lampson, M.A. (2010) Regulated targeting of protein phosphatase 1 to the outer kinetochore by KNL1 opposes Aurora B kinase. , **J. Cell Biol.** , 188 , 809 - 820
- 3 . Matsuda, R., Hori, T., Kitamura, H., Takeuchi, K., Fukagawa, T., and Harata, M. (2010) Identification and characterization of the two isoforms of the vertebrate H2A.Z histone variant. , **Nucleic Acids Res.** , 38 , 4263 - 4273
- 4 . Welburn, J.P., Vleugel, M., Liu, D., Yates J.R. 3rd, Lampson, M.A., and Fukagawa, T., and Cheeseman, I.M. (2010) Aurora B phosphorylates spatially distinct targets to differentially regulate the kinetochore-microtubule interface. , **Mol. Cell** , 38 , 383 - 392
- 5 . Ribeiro, S.A., Vagnarelli, P., Dong, Y., Hori, T., McEwen, B.F., Fukagawa, T., Flors, C., and Earnshaw, W.C. (2010) A super-resolution map of the vertebrate kinetochore. , **Proc. Natl. Acad. Sci. USA** , 107 , 10484 - 10489
- 6 . Shang, W.H., Hori, T., Toyoda, A., Kato, J., Popendorf, K., Sakakibara, Y., Fujiyama, A., and Fukagawa, T. (2010) Chickens possess centromeres with both extended tandem repeats and short non-tandem-repetitive sequences. , **Genome Res.** , 20 , 1219 - 1228
- 7 . Johnston, K., Joglekar, A., Hori, T., Suzuki, A., Fukagawa, T., Salmon, E.D. (2010) Vertebrate kinetochore protein architecture: protein copy number. , **J. Cell Biol.** , 189 , 937 - 943
- 8 . Cheng, Y., Geng, H., Cheng, S.H., Liang, P., Bai, Y., Li, J., Srivastava, G., Ng, M.H., Fukagawa, T., Wu, X., Chan, A.T., and Tao, Q. (2010) KRAB zinc finger protein ZNF382 is a proapoptotic tumor suppressor that represses multiple oncogenes and is commonly silenced in multiple carcinomas. , **Cancer Res.** , 70 , 6516 - 6526
- 9 . Ohta, S., Bukowski-Wills, J.C., Sanchez-Pulido, L., Alves Fde, L., Wood, L., Chen, Z.A., Platani, M., Fischer, L., Hudson, D.F., Ponting, C.P., Fukagawa, T., Earnshaw, W.C., and Rappsilber, J. (2010) The protein composition of mitotic chromosomes determined using multiclassifier combinatorial proteomics. , **Cell** , 142 , 810 - 821
- 10 . 竹内康造, 深川竜郎 (2010) 動原体分子構築 , 細胞工学 , 29 , 849 - 855

ORAL PRESENTATION

- 1 . 深川竜郎 高等動物のキネトコア構築 京大生命科学研究所セミナー 京都大学・生命科学研究所 12/20

2. Tatsuo Fukagawa Kinetochores assembly and dynamics NIH seminar NIH 12/16
3. 深川竜郎 染色体分配に必要なキネトコア構造の分子構築 東京大学GCOE特別セミナー 東京大学・医科学研究所 9/2
4. Fukagawa T. Molecular architecture of the vertebrate constitutive centromere associated network Sokendai Life Sciences Symposium Peking University Peking University 3/10

POSTER PRESENTATIONS

1. Nishino, T. 「kkkkkkkkk」, Conférence Jacques Monod intitulée, Roscoff, 9/5~9
2. 鈴木應志,堀哲也,西野達哉,深川竜郎 「インナーキネトコアのダイナミックな構造変化の解析」, 第27回染色体ワークショップ, 御殿場, 1/20
3. 深川竜郎 「Structural dynamics of inner-kinetochore for faithful chromosome segregation」, BMB2010 第33回日本分子生物学会年会・第83回日本生化学会大会合同大会, 神戸, 12/7~10
4. Wei-Hao Shang, Tetsuya Hori, Atsushi Toyoda, Asao Fujiyama, Tatsuo Fukagawa 「Characterization of Chicken Centromere DNA」, 第27回染色体ワークショップ, 御殿場, 1/21
5. 越阪部晃永,立和名博昭,堀 哲也,小布施力史,木村 宏,深川竜郎,胡桃阪仁志 「新規ヒストン結合因子ヒトSPT2のDNA損傷修復における機能解析」, BMB2010 第33回日本分子生物学会年会・第83回日本生化学会大会合同大会, 神戸, 12/7~10
6. 竹内康造,堀 哲也,西野達哉,立和名博昭,越阪部晃永,胡桃阪仁志,深川竜郎 「DNA結合活性を有するCCANタンパク質群の機能解析」, BMB2010 第33回日本分子生物学会年会・第83回日本生化学会大会合同大会, 神戸, 12/7~10
7. 香川尚子,堀 哲也,保木裕子,佐渡 敬,山縣一夫,小久保博樹,佐賀裕美子,深川竜郎 「遺伝子欠損マウスを用いたCENP-O複合体の機能解析」, BMB2010 第33回日本分子生物学会年会・第83回日本生化学会大会合同大会, 神戸, 12/7~10
8. 北村大志,大淵恵理,田辺秀之,小布施力史,堀 哲也,深川竜郎,原田昌彦 「細胞核内のクロマチン空間配置におけるアクチン関連タンパク質Arp6の機能解析」, BMB2010 第33回日本分子生物学会年会・第83回日本生化学会大会合同大会, 神戸, 12/7~10
9. 越阪部晃永,立和名博昭,堀 哲也,小布施力史,木村 宏,深川竜郎,胡桃阪仁志 「新規ヒストン結合因子ヒトSPT2のDNA損傷修復における機能解析」, BMB2010 第33回日本分子生物学会年会・第83回日本生化学会大会合同大会, 神戸, 12/7~10
10. 松田涼,堀 哲也,竹内康造,北村大志,深川竜郎,原田昌彦 「遺伝子破壊細胞によるヒストンバリエントH2A.Zアイソフォームの機能解析」, BMB2010 第33回日本分子生物学会年会・第83回日本生化学会大会合同大会, 神戸, 12/7~10
11. Wei-Hao Shang, Tetsuya Hori, Atsushi Toyoda, Kris Pependorf, Yasubumi Sakakibara, Aso Fujiyama, Tatsuo Fukagawa 「Creation of chromosomes containing neocentromere in chicken DT40 cells」, BMB2010 第33回日本分子生物学会年会・第83回日本生化学会大会合同大会, 神戸, 12/7~10
12. T. Hori, W. Shang, K. Takeuchi, A. Toyoda, Y. Sakakibara, A. Fujiyama, T. Fukagawa 「Unique Feature of Chicken Centromere DNA and Engineering of Centromere Using DT40 Cells」, 50th ASCB Annual Meeting, Philadelphia, 12/11~15
13. A. Suzuki, T. Hori, T. Nisino, A. Miyagi, K. Morikawa, T. Fukagawa 「Stretched Distribution of Inner Kinetochore Occurs Dependent on Tension from Spindle Microtubules」, 50th ASCB Annual Meeting, Philadelphia, 12/11~15
14. 深川竜郎 「動物細胞のキネトコア構造」, 構造エピゲノム研究会 発足記念シンポジウム, 横浜, 4/30
15. 堀哲也, 立和名博昭, 越阪部晃永, 小布施力史, 胡桃阪仁志, 深川竜郎 「高等動物のセントロメアクロマチン構造」, 第27回染色体ワークショップ, 御殿場, 1/20
16. Perpelescu, M., Nozaki, N., Obuse, C., Yoda, K., and Fukagawa, T. 「Active establishment of CENP-A chromatin by remodeling factor Rsf-1/RSF.」, 第27回染色体ワークショップ, 御殿場, 1/20
17. 深川竜郎 「染色体分配におけるインナーキネトコアの構造変化」, 第62回日本細胞生物学会シンポジウム, 大阪, 5/19
18. Fukagawa, T. 「Structural dynamics of inner-kinetochore for faithful chromosome segregation」, EMBO workshop on chromosome segregation and aneuploidy, Edinburgh

EDUCATION

1. 深川竜郎、胡桃坂仁志 細胞核超分子複合体の動態とその機能 遺伝研研究集会 三島 10/21-22
2. 深川竜郎, 仁木宏典 第27回染色体ワークショップ 御殿場 1/20
3. 深川竜郎, 石川冬木 核構造と染色体ダイナミクス 第62回日本細胞生物学会シンポジウム 大阪 5/19

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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. Ide, S., Miyazaki, T., Maki, H., and Kobayashi, T. (2010) Abundance of ribosomal RNA gene copies maintains genome integrity. , **Science** , 327 , 693 - 696

POSTER PRESENTATIONS

1. 飯田哲史, 筒井康博 「 RNAi mediated cell cycle regulation in fission yeast. 」, 第32回日本分子生物学会, 神戸市, 12/9

BOOK

1. 小林 武彦 (2010) 4章2.老化モデル2.5「酵母」 新老年学 第3版 265 - 271

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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. Hizume K, Araki S, Hata K, Prieto E, Kundu TK, Yoshikawa K, Takeyasu K. (2010) Nano-scale analysis of the chromatin decompaction induced by histone acetylation, **Archives of Histology and Cytology**, 73, 149 - 163
2. Araki, H. (2010) Cyclin-dependent kinase-dependent initiation of chromosomal DNA replication. , **Curr. Opin.Cell Biol.**, 22, 766 - 771
3. Muramatsu, S., Hirai, K., Tak, Y-S., Kamimura, Y. and Araki, H. (2010) CDK-dependent complex formation between replication proteins, Dpb11, Sld2, Polε and GINS in budding yeast. , **Genes & Dev.**, 24, 602 - 612

POSTER PRESENTATIONS

1. 荒木弘之、柳沢好美、田中尚美、田中太門、遠藤静子、平井和之、田中誠司 「CDKに依存した染色体DNA複製開始の分子機構」, 第33回日本分子生物学会年会, 神戸, 12/7~12/10
2. Tanaka,S., Araki,H. 「Temporal regulation of activation of replication origins in the budding yeast *Saccharomyces cerevisiae*.」, 第33回日本分子生物学会年会, 神戸, 12/7~12/10
3. Araki, H.,Tanaka, T.,Tanaka, Y.,Yanagisawa, Y., Endo,S.,Tanaka, S. 「How replication proteins associate with and dissociate from origins to initiate chromosomal DNA replication」, 2010 FASEB Summer Research Conferences, Carefree, Arizona,USA, 8/8~8/13
4. Araki, H.,Tanaka, T.,Tanaka, Y.,Yanagisawa, Y., Endo,S.,Hirai,K.,Tanaka, S. 「How replication proteins associate with origins to initiate chromosomal DNA replication」, 2010 3R(Replication, Recombination&Repair)Symposium, 富山, 10/26~10/30
5. 荒木弘之 「出芽酵母における複製開始メカニズム」, 第82回日本遺伝学会 木原賞受賞講演, 札幌, 9/19~9/22
6. Tanaka,S., Araki,H. 「Cdc7-Dbf4 kinase specifies early replication origins by regulating the association of low-abundant replication initiation factors in budding yeast.」, 2010 3R(Replication, Recombination&Repair)Symposium, 富山, 10/26~10/30
7. Yagura,M., Araki,H. 「Functions of MCM10 in chromosomal DNA replication in budding yeast」, 2010 3R(Replication, Recombination&Repair)Symposium, 富山, 10/26~10/30
8. Hirai,K., Sakamoto,S. and Araki,H. 「Protein assembly at the initiation stage of chromosomal DNA replication in budding yeast」, 2010 3R(Replication, Recombination&Repair)Symposium, 富山, 10/26~10/30
9. 荒木弘之 「サイクリン依存性キナーゼによる染色体複製開始制御機構」, 特定領域研究「染色体サイクルの制御ネットワーク」終了シンポジウム, 東京, 10/1

10. 田中誠司、荒木弘之 「 DNA複製制御機構とゲノム安定維持・高次複製制御機構 」, 2010年 関東東海DNA研究会, 箱根, 9/6~9/7
11. 日詰光治、荒木弘之 「 複製開始点付近のクロマチン構造解析の試み 」, 2010年 関東東海DNA研究会, 箱根, 9/6~9/7
12. 矢倉 勝、荒木弘之 「 出芽酵母 in vitro DNA複製系構築の試み 」, 2010年 関東東海DNA研究会, 箱根, 9/6~9/7
13. 平井和之、荒木弘之 「 染色体DNA複製開始期におけるタンパク質複合体形成の生化学的解析 」, 2010年 関東東海DNA研究会, 箱根, 9/6~9/7
14. 牧野 仁志穂、荒木弘之 「 複製因子Sld3とSld7の相互作用の解析 」, 2010年 関東東海DNA研究会, 箱根, 9/6~9/7
15. 田中誠司、荒木弘之 「 真核生物におけるDNA複製制御機構とゲノム安定維持・高次複製制御機構 」, 酵母遺伝学フォーラム第43回研究報告会, 奈良, 9/9~9/11
16. Tanaka,S., Araki,H. 「 Multiple regulatory mechanisms of the initiation of DNA replication are important for stable genome maintenance 」, International Conference on Radiation and Cancer Biology at Nagasaki 2010, 長崎, 2/17~2/20
17. 田中誠司、荒木弘之 「 細胞周期における染色体DNA複製の高次制御機構 」, 平成22年度 特定領域研究「細胞増殖制御」班会議 , 北九州, 7/26~7/28

OTHERS

1. 荒木 弘之, 2, 第82回日本遺伝学会 木原賞

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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 . Kawaida H, Shimizu H, Fujisawa T, Tachida H, Kobayakawa Y (2010) Molecular phylogenetic study in genus Hydra. , **Gene** , 468 , 30 - 40

OTHERS

1 . 清水 裕 , 3 , Editorial board member of BMC EvoDevo

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C-a. Division of Developmental Genetics

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C-a. Division of Developmental Genetics

Yasushi Hiromi

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

1. 浅岡美穂 (2010) ショウジョウバエ配偶子幹細胞とニッチ, 細胞工学, 29, 638 - 644

POSTER PRESENTATIONS

1. Asaoka, M., Yuasa, Y., Hiromi, H. 「 A transient niche in the Drosophila ovary maintains germline stem cell precursors in an undifferentiated state. 」, Cold Spring Harbor meeting " Germ Cells", Cold Spring Harbor, NY, 10/5-9
2. Yuasa, Y., Hiromi, Y. 「 Subtype specification of the drosophila longitudinal glial cells 」, International Bioresource Symposium "Drosophila", Kyoto, 3/17-18
3. Hiromi, Y 「 Generation of pattern within the axonal membrane 」, The 13th International Membrane Research Forum, Kyoto, 1/27-1/29

EDUCATION

1. 浅岡美穂, 仁木雄三 新学術領域研究 第3回「配偶子幹細胞制御機構」領域会議 下田 6/3-6/5

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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 . Tanabe,Y., Hirano,A., Iwasato,T., Itohara,S., Araki,K., Yamaguchi,T., Aizawa,Y., Takahashi,H., Kakita,A., Nawa,H. (2009) Molecular characterization and gene disruption of a novel zincfinger protein, HIT-4, expressed in rodent brain. , **J.Neurochem.** , 112 , 1035 - 1044

ORAL PRESENTATION

- 1 . 岩里琢治 ”変異マウス”が解き明かす”脳回路”の発達と”遺伝子”の働き 基礎生物学Ⅱ 埼玉 6/30
- 2 . 岩里琢治 体性感覚野発達の分子・細胞メカニズム 医学・生命科学セミナー 熊本大学・医学教育部 7/21
- 3 . 岩里琢治 マウス遺伝学を用いた運動系神経回路発達機構の研究 大学院医歯学総合研究科システム神経生理学分野特別講義 東京医科歯科大学大学院 10/26
- 4 . 岩里琢治 神経回路発達・機能のマウス遺伝学 基礎総合講義 東京大学・医学部 12/14

POSTER PRESENTATIONS

- 1 . 岩里琢治 「 Circuit refinement during postnatal development of the mouse somatosensory cortex. 」, BMB2010 第33回日本分子生物学会年会・第83回日本生化学会大会 合同大会, 神戸市, 12/7
- 2 . Iwata,R.,Goto,H.,Tanaka,M.,Itohara,Y.,Iwasato,T. 「 Comprehensive behavioral analysis of miffy mice, a spontaneous mutant of Rac-GAP α -chimerin 」, Molecular and Cellular Cognition Society – Society for Neuroscience Satellite Symposium 2010 , アメリカ合衆国, サンディエゴ, 11/11

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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. Siripattarapivat, K., Pinmee, B., Chang, E.A., Muñoz, J.D., Kawakami, K., Cibelli, J.B. (2010) The influence of donor nucleus source on the outcome of zebrafish somatic cell nuclear transfer, **International Journal of Developmental Biology**, 54, 1679 - 1683
2. Suzuki, Y., Urasaki, A., Asami, Y., Isaka, K., and Kawakami, K. (2010) Efficient gene transfer to endometrial adenocarcinoma cell line (Ishikawa) by Tol2 transposable element: a possible vector for gene therapy for implantation failure, **The Journal of Tokyo Medical University**, 68, 396 - 402
3. 隅山健太, 川上浩一 (2010) Close Up実験法: Tol2トランスポゾンを用いた画期的なトランスジェニックマウス作製法, **実験医学**, 28, 2653 - 2660
4. Agetsuma, M., Aizawa, H., Aoki, T., Nakayama, R., Takahoko, M., Goto, M., Sassa, T., Amo, R., Shiraki, T., Kawakami, K., Hosoya, T., Higashijima, S., and Okamoto, H. (2010) The habenula is crucial for experience-dependent modification of fear responses in zebrafish., **Nature Neuroscience**, 13, 1354 - 1356
5. Kawakami, K., Abe, G., Asada, T., Asakawa, K., Fukuda, R., Ito, A., Lal, P., Mouri, N., Muto, A., Suster, M.L., Takakubo, H., Urasaki, A., Wada, H., and Yoshida, M. (2010) zTrap: zebrafish gene trap and enhancer trap database., **BMC Developmental Biology**, 10(1), 105 - 0
6. Hu, S.Y., Lin, P.Y., Liao, C.H., Gong, H.Y., Lin, G.H., Kawakami, K., and Wu, J.L. (2010) Nitroreductase-mediated gonadal dysgenesis for infertility control of genetically modified zebrafish., **Marine Biotechnology**, 12, 569 - 578
7. Asakawa, K., and Kawakami, K. (2010) A transgenic zebrafish for monitoring in vivo microtubule structures, **Developmental Dynamics**, 239, 2695 - 2699
8. Chen, Y.C., Wu, B.K., Chu, C.Y., Cheng, C.H., Han, H.W., Chen, G.D., Lee, M.T., Hwang, P.P., Kawakami, K., Chang, C.C., and Huang, C.J. (2010) Identification and characterization of alternative promoters of zebrafish Rtn-4/Nogo genes in cultured cells and zebrafish embryos., **Nucleic Acids Research**, 38, 4635 - 4650
9. Imai, F., Yoshizawa, A., Fujimori-Tonou, N., Kawakami, K., and Masai, I. (2010) The ubiquitin proteasome system is required for cell proliferation of the lens epithelium and for differentiation of lens fiber cells in zebrafish., **Development**, 137, 3257 - 3268
10. Rodríguez-Marí, A., Cañestro, C., Bremiller, R.A., Nguyen-Johnson, A., Asakawa, K., Kawakami, K., and Postlethwait, J.H. (2010) Sex Reversal in Zebrafish fancl Mutants Is Caused by Tp53-Mediated Germ Cell Apoptosis., **PLoS genetics**, 6, 1001034 - 0
11. Bussmann, J., Bos, F.L., Urasaki, A., Kawakami, K., Duckers, H.J., and Schulte-Merker, S. (2010) Arteries provide essential guidance cues for lymphatic endothelial cells

in the zebrafish trunk. , **Development** , 137 , 2653 - 2657

12 . Yamamoto, M., Morita, R., Mizoguchi, T., Matsuo, H., Isoda, M., Ishitani, T., Chitnis, A.B., Matsumoto, K., Crump, J.G., Hozumi, K., Yonemura, S., Kawakami, K., and Itoh, M. (2010) Mib-Jag1-Notch signalling regulates patterning and structural roles of the notochord by controlling cell-fate decisions. , **Development** , 137 , 2527 - 2537

13 . Sinha, D.K., Neveu, P., Gagey, N., Aujard, I., Le Saux, T., Rampon, C., Gauron, C., Kawakami, K., Leucht, C., Bally-Cuif, L., Volovitch, M., Bensimon, D., Jullien, L., and Vriza, S. (2010) Photoactivation of the CreER(T2) recombinase for conditional site-specific recombination with high spatiotemporal resolution. , **Zebrafish** , 7 , 199 - 204

14 . Pujol-Martí, J., Baudoin, J.P., Faucherre, A., Kawakami, K., and López-Schier, H. (2010) Progressive neurogenesis defines lateralis somatotopy. , **Developmental Dynamics** , 239 , 1919 - 1930

15 . Grabundzija, I., Irgang, M., Mátés, L., Belay, E., Matrai, J., Gogol-Döring, A., Kawakami, K., Chen, W., Ruiz, P., Chuah, M.K., Vandendriessche, T., Izsvák, Z., and Ivics, Z. (2010) Comparative Analysis of Transposable Element Vector Systems in Human Cells. , **Molecular Therapy** , 18 , 1200 - 1209

16 . Yoshida, A., Yamaguchi, Y., Nonomura, K., Kawakami, K., Takahashi, Y., and Miura, M. (2010) Simultaneous expression of different transgenes in neurons and glia by combining in utero electroporation with the Tol2 transposon-mediated gene transfer system. , **Genes to Cells** , 15 , 501 - 512

17 . Sumiyama, K., Kawakami, K., and Yagita, K. (2010) A simple and highly efficient transgenesis method in mice with the Tol2 transposon system and cytoplasmic microinjection. , **Genomics** , 95 , 306 - 311

18 . Wada, H., Ghysen, A., Satou, C., Higashijima, S.I., Kawakami, K., Hamaguchi, S., and Sakaizumi, M. (2010) Dermal morphogenesis controls lateral line patterning during postembryonic development of teleost fish. , **Developmental Biology** , 340 , 583 - 594

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22 . Kajita, M., Hogan, C., Harris, A.R., Dupre-Crochet, S., Itasaki, N., Kawakami, K., Charras, G., Tada, M., Fujita, Y. (2009) Interaction with surrounding normal epithelial cells influences signalling pathways and behaviour of Src-transformed cells. , **Journal of Cell Science** , 123 , 171 - 180

23 . Yagita, K., Yamanaka, I., Emoto, N., Kawakami, K., Shimada, S. (2009) Real-time monitoring of circadian clock oscillations in primary cultures of mammalian cells using Tol2 transposon-mediated gene transfer strategy. , **BMC Biotechnology** , 10(1) , 3 - 0

ORAL PRESENTATION

1 . 川上浩一 脊椎動物におけるトランスポゾンテクノロジーと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 大学院特別講義 自治医科大学 11/29

2 . 川上浩一 脊椎動物におけるトランスポゾンテクノロジーとゼブラフィッシュ神経回路機能研究 大学院セミナー 宮崎大学・医学部 11/12

3 . 川上浩一 ゼブラフィッシュとトランスポゾンがひらく新しい生物学 花王株式会社・生物科学研究所 10/1

4 . 川上浩一 脊椎動物トランスポゾンTol2 タカラバイオ、大津市 10/4

5 . Kawakami, K. Transposon-mediated genetic methods in zebrafish and their application to the study of functional neural circuits Seminar at National Taiwan Ocean

University 国立台湾海洋大学 8/18

6 . Kawakami, K. Transposon-mediated genetic methods in zebrafish and their application to the study of functional neural circuits Seminar at National Health Research Institute, Taiwan 国家衛生研究院(台湾) 8/19

7 . Kawakami, K. Transposon-mediated genetic methods in zebrafish and their application to the study of functional neural circuits Special seminar at University of Washington Department of Biochemistry, University of Washington 8/10

8 . Kawakami, K. Transposon-mediated genetic methods in zebrafish and their application to the study of functional neural circuits University of Utah, Salt Lake City 6/14

9 . 川上浩一 脊椎動物におけるトランスポゾンテクノロジーとゼブラフィッシュ神経回路機能研究 国際基督教大学教養学部講義 国際基督教大学・教養学部 5/19

10 . 川上浩一 脊椎動物におけるトランスポゾンテクノロジーとゼブラフィッシュ神経回路機能研究 第2回生命科学概論 東京大学大学院新領域創成科学研究科先端生命科学専攻 5/7

11 . 川上浩一 ゼブラフィッシュとトランスポゾンの遺伝学 埼玉大学脳科学融合センター講演会 埼玉大学 1/15

POSTER PRESENTATIONS

1 . Yano, T., Abe, G., Kawakami, K., Yokoyama, H., Tamura, K. 「 Developmental Properties of the Fin Mesenchyme in Zebrafish 」, 第43回日本発生生物学会年会, 京都, 6/20-23

2 . Sumiyama, K., Kawakami, K., Yagita, K. 「 A Simple and highly efficient transgenesis method in mice with the Tol2 transposon system and cytoplasmic microinjection 」, 第43回日本発生生物学会年会, 京都, 6/20-23

3 . Takeuchi, M., Kaneko, H., Nishikawa, K., Kawakami, K., Yamamoto, M., Kobayashi, M. 「 Efficient phenotypic rescue of the zebrafish hematopoietic mutant using Tol2-mediated transgenesis 」, 第43回日本発生生物学会年会, 京都, 6/20-23

4 . Sumiyama, K., Kawakami, K., Yagita, K. 「 A simple and highly efficient transgenesis method in mice with the Tol2 transposon system and cytoplasmic microinjection. 」, 第33回日本分子生物学会年会・第83回日本生化学会大会, 神戸, 12/7-10

5 . Kawakami, K. 「 The Tol2-mediated Gal4-UAS system and its application to the study of functional neural circuits in zebrafish 」, Imaging Structure and Function in the Zebrafish Brain, Lisbon, Portugal, 12/13-15

6 . Okigawa, S., Isoda, M., Suster, M., Kawakami, K., Itoh, M. 「 DeltaA and DeltaD act cooperatively to maintain V2 interneuron progenitors 」, 第33回日本分子生物学会年会・第83回日本生化学会大会, 神戸, 12/7-10

7 . 荻野一豊, 三木麻莉子, 浅川和秀, 小田洋一, 川上浩一, 平田普三 「 ゼブラフィッシュ胚でのグリシン作動性シナプスのライブイメージング 」, 第33回日本分子生物学会年会・第83回日本生化学会大会, 神戸, 12/7-10

8 . Asakawa, K., Abe, G., Kawakami, K. 「 Genetic dissection of the hindbrain functions by the Gal4-UAS system in zebrafish 」, 第33回日本分子生物学会年会・第83回日本生化学会大会, 神戸, 12/7-10

9 . 佐藤文規, 佐藤智美, 坂口和弥, 浦崎明宏, 和田浩則, 川上浩一, 瀬原淳子 「 Zebrafish を用いた神経のミエリネーション可視化による膜型プロテアーゼADAM19 の機能の解明 」, 第33回日本分子生物学会年会・第83回日本生化学会大会, 神戸, 12/7-10

10 . 中村遼平, 守山裕大, 河西通, 兼子拓也, Maximiliano Suster, 川上浩一, 島田敦子, 塚原達也, 武田洋幸 「 脊椎動物の外部形態を制御する転写因子Zic1/Zic4 の発現制御機構の解析 」, 第33回日本分子生物学会年会・第83回日本生化学会大会, 神戸, 12/7-10

11 . Sumiyama, K., Kawakami, K., Yagita, K. 「 A simple and highly efficient transgenesis method in mice with the Tol2 transposon system and cytoplasmic microinjection. 」, 第33回日本分子生物学会年会・第83回日本生化学会大会, 神戸, 12/7-10

12 . Kawakami, K., Abe, G., Asakawa, K., Fukuda, R., Lal, P., Muto, A., Suster, M.L., Takakubo, H., Urasaki, A. 「 zTrap and NIGKOF: Resources for Gene Trap and Enhancer Trap Lines and Knockout Fish 」, 9th International Conference on Zebrafish, Madison, 6/16-20

13 . Tsetsckhadze, Z., Canfield, V., Johnson, S., Kawakami, K., Cheng, K.C. 「 Potential

- transposon excision from the alb b4 allele of slc45a2 in zebrafish », 5th aquatic animal model for human disease , Corvallis, Oregon , 9/20
- 14 . Kreneisz, O., James, V., Kawakami, K., Harvey, R.J., Suster, M.L. 「 Knockdown of the vertebrate α 4a glycine receptor subunit causes hyperekplexia-related tactile-evoked locomotor defects in zebrafish », Zebrafish Norwegian Network , Oslo, Norway , 10/29-31
 - 15 . 浅川和秀, 川上浩一 「 糖鎖結合タンパク質遺伝子 *Iman2la/VIPL* の変異は逃避行動のラテリティーに異常を引き起こす », 第16回小型魚類研究会 , さいたま市 , 9/18-19
 - 16 . 阿部玄武, 川上浩一 「 *tcf7/lef1/sox4a* cooperatively regulate *fgf24* expression during zebrafish fin development », 第16回小型魚類研究会 , さいたま市 , 9/18-19
 - 17 . 高久保瞳, Pradeep Lal, 浅川和秀, 川上浩一 「 Gal4遺伝子トラップ法により作製されたトランスジェニックゼブラフィッシュのトランスポゾン挿入部位の解析 », 第16回小型魚類研究会 , さいたま市 , 9/18-19
 - 18 . 浅川和秀, 阿部玄武, 川上浩一 「 ゼブラフィッシュGal4-UAS法を用いた後脳機能の遺伝学的解剖 », 第33回日本神経科学大会・第53回日本神経化学学会大会・第20回日本神経回路学会大会 , 神戸 , 9/2-4
 - 19 . 喜多善亮, 西田和彦, 川上浩一, 高橋淑子, 村上富士夫 「 小脳ニューロンの時空間的な発生制御—子宮内電気穿孔法を用いた解析— », 第33回日本神経科学大会・第53回日本神経化学学会大会・第20回日本神経回路学会大会 , 神戸 , 9/2-4
 - 20 . 武藤彩, 中井淳一, 川上浩一 「 改良型GCaMPを用いたゼブラフィッシュ脳機能の解析 », 第33回日本神経科学大会・第53回日本神経化学学会大会・第20回日本神経回路学会大会 , 神戸 , 9/2-4
 - 21 . 揚妻正和, 相澤秀則, 青木田鶴, 鷹矛美賀子, 中山涼子, 白木利幸, 後藤翠, 川上浩一, 東島眞一, 岡本仁 「 恐怖条件付けにともなった行動の選択は手綱核により制御される », 第33回日本神経科学大会・第53回日本神経化学学会大会・第20回日本神経回路学会大会 , 神戸 , 9/2-4
 - 22 . Kawakami, K. 「 Transposon-mediated genetic methods in zebrafish and their application to the study of functional neural circuits », 2010 Taiwan Zebrafish Developmental Biology Meeting , 台北 , 8/17
 - 23 . Kawakami, K., Abe, G., Asakawa, K., Fukuda, R., Lal, P., Muto, A., Suster, M.L., Takakubo, H., Urasaki, A. 「 zTrap and NIGKOF: databases for gene trap, enhancer trap and knockout zebrafish », Society for Developmental Biology 69th Annual Meeting , Albuquerque, NM , 8/5-8
 - 24 . Sumiyama, K., Kawakami, K., and Yagita, K. 「 A simple and highly efficient transgenesis method in mice with the Tol2 transposon system and cytoplasmic injection », 43rd Annual Meeting for the Japanese Society of Developmental Biologists , 京都 , 6/20-23
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 - 26 . Yano, T., Abe, G., Kawakami, K., Yokoyama, H., and Tamura, K. 「 Developmental Properties of the Fin Mesenchyme in Zebrafish », 43rd Annual Meeting for the Japanese Society of Developmental Biologists , 京都 , 6/20-23
 - 27 . Yano, T., Abe, G., Kawakami, K., Yokoyama, H., and Tamura, K. 「 Pectoral Fin Development in Teleost Fish; Difference from Tetrapod Limbs », CDB Symposium 2010 Frontiers in Organogenesis , 神戸 , 3/23-25
 - 28 . Kawakami, K. 「 The Tol2 transposon system: a useful tool for gene transfer and transgenesis », 第16回日本遺伝子治療学会学術集会 , 宇都宮 , 7/1-3
 - 29 . Fukuda, R., Kotani, T., Kawahara, A., Kawakami, K. 「 G protein alpha 12 involved in the heart tube formation via S1P signaling », 9th International Conference on Zebrafish , Madison , 6/16-20
 - 30 . Asakawa, K., Abe, G., Kawakami, K. 「 The functions of the hindbrain revealed by the Gal4-UAS system », 9th International Conference on Zebrafish , Madison , 6/16-20
 - 31 . Kondo, S., Inaba, M., Watanabe, M., Ida, K., Kawakami, K. 「 The Role of Potassium Channels in Stripe Pattern Formation », 9th International Conference on Zebrafish , Madison , 6/16-20
 - 32 . Lal, P., Kawakami, K. 「 Functional regionalization of the adult zebrafish brain by the

gene trap, enhancer trap and GAL4-UAS approaches], 9th International Conference on Zebrafish , Madison , 6/16-20

33 . Muto, A., Ohkura, M., Kotani, T., Nakai, J., Kawakami, K. 「 Visualization of Neuronal Activity in Zebrafish Spinal Neurons with an Improved GCaMP 」, 9th International Conference on Zebrafish , Madison , 6/16-20

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35 . Kawakami, K. 「 Transgenesis and genome analysis with the Tol2 transposable element in mice and zebrafish 」, FASEB Summer Research Conferences, Genome Engineering: Research and Therapeutic Applications , Steamboat, Colorado , 6/6-11

36 . 川上浩一 「 脊椎動物の骨格筋の形成・成熟・維持機構の研究 」, 京都大学再生医科学研究所平成21年度共同研究会 , 京都 , 3/26

37 . 川上浩一 「 ゼブラフィッシュにおける可視化技術と神経回路機能研究 」, 第115回日本解剖学会総会・全国学術集会シンポジウム , 盛岡 , 3/30

38 . 舟橋淳一、川上浩一、仲村春和 「 三次元タイムラプスで観るゼブラフィッシュ内耳の形態形成 」, 第115回日本解剖学会総会・全国学術集会シンポジウム , 盛岡 , 3/30

39 . Kawakami, K. 「 From gene to function: a quest with a transposon 」, zebrafish 2010: 11th Australia & New Zealand Workshop , Sydney , 2/3-5

EDUCATION

1 . 川上浩一、八田公平 光イメージング(座長) 第33回日本神経科学大会・第53回日本神経化学学会大会・第20回日本神経回路学会大会 一般講演 神戸 9/2-4

2 . 川上浩一、岡部正隆 光るゼブラフィッシュがひらく新しい解剖学 第115回日本解剖学会総会・全国学術集会シンポジウム 盛岡 3/20

DB SOFT

1 . Kawakami, K. , NIGKOF:database for knockout fish
<http://kawakami.lab.nig.ac.jp/knockout/>

PATENT

1 . PCT/JP2010/059881 , タンパク質の生産方法 , 川上浩一、山口恵奈、小川梨沙、塚原正義 , 大学共同利用機関法人情報・システム研究機構、協和発酵キリン株式会社

OTHERS

1 . Kawakami, K. , 3 , Editorial board of Zebrafish

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

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D. DEPARTMENT OF POPULATION GENETICS

D-a. Division of Population Genetics

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D-a. Division of Population Genetics

Naruya Saitou

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

1. Ezawa, K., Ikeya, K., Gojobori, T., and Saitou, N. (2010) Evolutionary Pattern of Gene Homogenization between Primate-Specific Paralogs after Human and Macaque Speciation using the 4-2-4 method, **Molecular Biology and Evolution**, 27, 2152 - 2171
2. Matsunami M., Sumiyama K., and Saitou N. (2010) Evolution of conserved non-coding sequences within the vertebrate Hox clusters through the two-round whole genome duplications revealed by phylogenetic footprinting analysis, **Journal of Molecular Evolution**, 71, 427 - 436
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5. 隅山 健太, 川上 浩一 (2010) Close Up実験法: Tol2トランスポゾンを用いた画期的なトランスジェニックマウス作製法, **実験医学**, 28, 2653 - 2660
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7. Jinam, T. A., Saitou, N., Edo, J., Mahmood, A., and Phipps, M. E. (2010) Molecular analysis of HLA Class I and Class II genes in four indigenous Malaysian populations, **Tissue Antigens**, 75, 151 - 158
8. Kitano, T., Satou, M., and Saitou, N. (2010) Evolution of two Rh blood group-related genes of the amphioxus species *Branchiostoma floridae*, **Genes and Genetics Systems**, 85, 121 - 127
9. Kryukov, K. and Saitou, N. (2010) MISHIMA - a new method for high speed multiple alignment of nucleotide sequences of bacterial genome scale data, **BMC Bioinformatics**, 11, 0 - 0
10. Sumiyama, K., Kawakami, K., Yagita K. (2009) A simple and highly efficient transgenesis method in mice with the Tol2 transposon system and cytoplasmic microinjection, **Genomics**, 95, 306 - 311

ORAL PRESENTATION

1. 齋藤 成也 分子生物学特論 集中講義 埼玉大学 12/20-22
2. 齋藤 成也 哺乳類の系統特異的進化を生じたゲノム変異の探索 埼玉大学セミナー 埼

玉大学 12/22

3. 隅山 健太 発生調節因子Dlx3-4遺伝子群シス発現制御領域のトランスジェニックマウスを用いた機能解析 病態生物医学セミナー 京都大学大学院医学研究科 9/14
4. 隅山 健太 ゲノム重複で生じたパラログ遺伝子間で保存する起源が古いエンハンサーはなぜ進化的に維持されてきたのか? NAIST GCOEセミナー 奈良先端科学技術大学院大学 7/28
5. 斎藤 成也 微生物のメタゲノム解析からなにがわかるのか 新領域融合プロジェクト「地球生命システム学」国立極地研究所 7/20
6. 斎藤 成也 大規模DNAデータから推定された東南アジアおよび東アジア人類集団の遺伝的近縁関係 亜熱帯島嶼科学超域研究セミナー 琉球大学 7/23
7. 斎藤 成也 DNAからみた日本列島人の起源 アイヌ文化普及啓発セミナー かでる2・7 7/30
8. 斎藤 成也 DNAからみた日本列島人の起源 アイヌ文化普及啓発セミナー アイヌ文化交流センター 8/6
9. 斎藤成也 ゲノム進化学特論 講義 総合研究大学院大学 1/6,7
10. 斎藤成也 基礎遺伝学 講義 山形大学・医学部 2/18
11. 斎藤成也 個人ゲノム時代の集団および個人の系統関係の解析 九州大学生体防御医学研究所セミナー 九州大学 1/8
12. 斎藤成也 分子進化学 講義 東京大学・理学部 6/2, 9, 16, 23
13. 斎藤成也 生物進化におけるパラダイム転換 ナノオプトメディア・サイエンスカフェ サイエンスカフェ・ガリレオ・ガリレイ 5/16

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1. Sumiyama, K., Kawakami, K., Yagita, K. 「 A simple and highly efficient transgenesis method in mice with the Tol2 transposon system and cytoplasmic microinjection. 」, BMB2010 第33回日本分子生物学会年会・第83回日本生化学会大会 合同大会, 神戸, 12/10
2. 斎藤 成也 「 動物において比較的最近に出現した重複遺伝子の進化パターン 」, 日本遺伝学会第82回大会, 札幌市, 9/21
3. 斎藤 成也 「 生物多様性をめぐる科学と社会の対話 」, 日本学術会議公開シンポジウム, 黒松内町, 9/23
4. 斎藤 成也 「 宇宙の起源, 生命の起源, そしてヒトの起源 I 」, 科学と仏教の接点, 東京, 10/30
5. 斎藤 成也 「 進化するゲノムたち 」, 国立遺伝学研究所公開講演会2010, 東京, 11/6
6. Sumiyama, K. 「 Functional evaluation of cis-regulatory elements and their evolution in the vertebrate Dlx3-7 bigene cluster. 」, NAIST Global COE International Symposium 2010: Plasticity in Development and Evolution, Nara, 11/11
7. Sumiyama, K. 「 The Genetic Basis For Primate Evolution At Cis-Regulatory System Level. 」, International Primatological Society XXIII Congress, Kyoto, 9/17
8. 隅山 健太 「 脊椎動物ゲノム重複遺伝子解析で発見された起源が古いcis-elementの機能と進化 」, 日本進化学会第12回大会, 東京, 8/4
9. 佐藤行人 「 遺伝子多重化が表現型に及ぼす効果についてのパスウェイシミュレーションを用いた検討 」, 日本進化学会第12回東京大会, 東京, 8/4
10. 鈴木留美子, 斎藤成也 「 真核生物のタンパク質コード遺伝子における高度保存塩基配列の解析 」, 日本進化学会第12回東京大会東京, 東京, 8/4
11. 高橋真保子, 斎藤成也 「 哺乳類ゲノムにおける系統特異的高度保存非コード領域の進化 」, 日本進化学会第12回東京大会東京東京, 東京, 8/4
12. 松波雅俊, 斎藤成也 「 2回のゲノム重複によって生じたパラログスなゲノム領域の同定 」, 日本進化学会第12回東京大会, 東京, 8/4
13. 斎藤成也, Kryukov Kirill 「 Statistics of Nucleotide Configurations (SNC): a New Method for Reconstruction of Phylogenetic Trees from Large Multiply Aligned Sequence Data 」, 日本進化学会第12回東京大会, 東京, 8/4
14. Sumiyama, K., Kawakami, K., Yagita, K. 「 A simple and highly efficient transgenesis method in mice with the Tol2 transposon system and cytoplasmic microinjection. 」, 43rd Annual Meeting for the Japanese Society of Developmental Biologists, Kyoto, 6/20
15. Takahashi, M., Saitou, N. 「 Identification and characteristics of primate specific highly

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- 16 . Kryukov,K., Sumiyama,K., Ikeo,K., Gojobori,T. and Saitou N. 「 Genome Composition Database], SMBE Annual Meeting 2010 , Lyon , 7/4-7
- 17 . Suzuki,R., Saitou N. 「 Sound of Silence – Potential Functionality of Conserved Nucleotide Sequences in Mammalian Coding Genes], SMBE Annual Meeting 2010 , Lyon , 7/4-7
- 18 . 松波雅俊, 斎藤成也 「 脊椎動物祖先で起こった2回のゲノム重複についてのゲノム進化的解析], 定量生物学会第2回年会 , 大阪市 , 1/10-11
- 19 . Matsunami,M., Saitou,N. 「 Identification of conserved paralogous syntenic blocks derived from the vertebrate two rounds of whole genome duplications], SMBE Annual Meeting 2010 , Lyon , 7/4-7
- 20 . Sumiyama, K. 「 Evolutionary study of the vertebrate cis-regulatory elements in development with special reference to the Dlx gene system.], International Conference on Mathematics, Evolution AND Development , Shanghai, China , 3/22
- 21 . Saitou, N. 「 Evolutionary Patterns of Paralog Homogenization between Primates and Rodents], The 9th China-Japan-Korea Bioinformatics Training Course and Bioinformatics Symposium , Shanghai , 3/23
- 22 . 斎藤成也 「 人類は多様性が減少してきた], 日本学術会議主催公開シンポジウム , 豊岡市 , 5/22
- 23 . Saitou, N. 「 a new method for rapid construction of multiple alignments for large number of sequences up to bacterial genome size.], Japan-Korea-China Bioinformatics Symposium , Tokyo , 3/1
- 24 . Saitou, N. 「 Evolutionary Genomics], The 9th Japan-Korea-China Bioinformatics Training Course , Shanghai , 4/20-22
- 25 . Sato, Y. 「 Molecular evolutionary study with pathway simulation on gene dosage effect], The International Symposium on Mathematics, Evolution, and Development , Shanghai , 3/23
- 26 . Saitou, N. 「 Blurring distinction between ortholog and paralog through frequent duplog homogenization], International Conference on Mathematics, Evolution and Development , Shanghai , 3/23

EDUCATION

- 1 . 斎藤 成也 日本DNA多型学会第19回学術集会 日本DNA多型学会第19回学術集会
三島市 11/18-20

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Toshiyuki Takano

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

1. Takahashi, K. H., Rako, L., Takano-Shimizu, T., Hoffmann, A.A., and Lee, S.F. (2010) Effects of small *Hsp* genes on developmental stability and microenvironmental canalization. , **BMC Evol. Biol.** , 10 , 284 -
2. Itoh, M., Nanba, N., Hasegawa, M., Inomata, N., Kondo, R., Oshima, M., and Takano-Shimizu T. (2010) Seasonal changes in the long-distance linkage disequilibrium in *Drosophila melanogaster*. , **Journal of Heredity** , 101 , 26 - 32
3. Sawamura, K., Maehara, K., Mashino, S., Kagesawa, T., Kajiwara, M., Matsuno, K., Takahashi, A., Takano-Shimizu, T. (2010) Introgression of *Drosophila simulans* *Nup160* (nuclear pore protein 160) in *Drosophila melanogaster* alone does not cause inviability but does cause female sterility. , **Genetics** , 186 , 669 - 676

ORAL PRESENTATION

1. Takano-Shimizu, T. Divergence of transcriptional regulation and *cis-trans* coevolution OIST seminar Okinawa Institute of Science and Technology 5/19
2. 高野敏行 発生システムの頑健性を支える冗長性と発生調節の機構 昆虫学特別セミナー 琉球大学・農学部 5/19

POSTER PRESENTATIONS

1. 高野 敏行, 高橋亮 「 遺伝子発現を調節する細胞内環境とシス調節領域の共進化 」, 日本遺伝学会第82回大会, 札幌, 9/22
2. 高橋 文 「 ショウジョウバエにおける体色の種内変異と非ランダム交配 」, 特定領域研究『植物ゲノム障壁』若手ワークショップ, 名古屋, 7月
3. 高橋 文 「 ショウジョウバエにおける体色種内変異の分子基盤と行動への影響について 」, 第82回遺伝学会WS「ゲノム間の軋轢と調和が生物多様性を生みだす細胞機構」, 札幌, 9月
4. 高橋 文 「 ショウジョウバエにおける体色と行動の関連性について 」, 北海道大学低温科学研究所研究集会「ショウジョウバエ研究のいまとこれから—特に, キイロショウジョウバエ以外の研究に注目して—」, 札幌, 9月
5. 田中健太郎 「 新規に生じた重複遺伝子の運命に及ぼす有害突然変異の効果 」, 第12回日本進化学会 WS『大規模解析から見えてきた遺伝子重複による進化 ~多様性、頑健性、必須性~』, 東京, 8月
6. 田中健太郎 「 キイロショウジョウバエにおける遺伝的攪乱に対するロバストネスの解析 」, 北海道大学低温科学研究所研究集会「ショウジョウバエ研究のいまとこれから—特に, キイロシ

ヨウジョウバエ以外の研究に注目してー」, 札幌, 9月

7. 田中健太郎,高橋文,高野敏行 「 *bicoid* 遺伝子コピー数増加による発生予定運命の異常を修復するショウジョウバエ遺伝子の同定 」, 日本遺伝学会第82会大会, 札幌, 9月

8. Tanaka, K. M., Takahashi, A., Itho, M., and Takano-Shimizu, T. 「 Hidden genetic variation in the ability of repair of fate map shift caused by 6 copies of *bcd* gene in a natural population. 」, 51st Annual Drosophila Research Conference, Washington, DC., 4/7-4/11

9. Takahashi, K. H., Lee, S. F., Rako, L., Hoffmann, A. A., and Takano-Shimizu, T. 「 Effect of Hsp genes on canalization and developmental stability. 」, 51st Annual Drosophila Research Conference, Washington, DC., 4/7-4/11

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E. DEPARTMENT OF INTEGRATED GENETICS

E-b. Division of Agricultural Genetics

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E-b. Division of Agricultural Genetics

Tetsuji Kakutani

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

1. Inagaki, S., Miura-Kamio, A., Nakamura, Y., Lu, Fu., Cui, X., Cao, X., Kimura, H., Saze, H., and Kakutani, T. (2010) Autocatalytic differentiation of epigenetic modifications in Arabidopsis genome, **EMBO Journal.**, 29, 3496 - 3506

POSTER PRESENTATIONS

1. Kakutani, T. 「Genetics of DNA methylation in genes and transposons in Arabidopsis」, ASM symposium "Mobile DNA", モントリオール、カナダ, 4/27

2. 角谷徹仁 「DNAメチル化とトランスポゾンとシロイヌナズナのエピ遺伝学」, 日本遺伝学会第82回大会シンポジウム, 札幌, 9/20

3. 角谷徹仁 「シロイヌナズナにおけるDNAメチル化の遺伝学」, 大阪大学タンパク研究所セミナー「ゲノム記憶の成立機序とその制御」, 大阪, 11/19

4. Kakutani, T. 「Genetic of DNA methylation in genes and transposons in Arabidopsis」, International Conference of Arabidopsis Research, 横浜, 6/8

5. 河邊昭, 塚原小百合, 角谷徹仁 「Arabidopsis属におけるCOPIA93/COPIA20ファミリーの分布と挿入位置特異性」, 日本遺伝学会第82回大会シンポジウム, 札幌, 9/21

6. 塚原小百合, 小林啓恵, 河邊昭, 角谷徹仁 「Arabidopsis lyrataにおけるCOPIA93レトロトランスポソンのセントロメア特異的分布の形成機構」, 日本遺伝学会第82回大会シンポジウム, 札幌, 9/21

7. 佐々木卓, 三浦明日香, 小林啓恵, 伊藤佑, 角谷徹仁 「RNAi経路とクロマチン再構成による植物発生とDNAメチル化の制御」, 日本遺伝学会第82回大会シンポジウム, 札幌, 9/21

8. 佐瀬英俊, 高嶋和哉, 北山淳子, 小林啓恵, 角谷徹仁 「シロイヌナズナの遺伝子領域におけるヘテロクロマチン修飾除去メカニズムの解析」, 日本遺伝学会第82回大会シンポジウム, 札幌, 9/21

9. Kakutani, T. 「Genetics of DNA methylation in genes and transposons in Arabidopsis」, Cold Spring Harbor Asia meeting "From Plant Biology to Crop Biotechnology", Suzhou, China, 10/25

OTHERS

1. 角谷徹仁, 1, 日本エピジェネティクス研究会幹事

2. 角谷徹仁, 3, Associate Editor, PLoS Genetics

3. 角谷徹仁, 3, Editorial board member, Epigenetics and Chromatin

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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 . Yamatani, H., Kawasaki, T., Mita, S., Inagaki, N., and Hirata, T. (2010) Proteomics analysis of the temporal changes in axonal proteins during maturation. , **Dev. Neurobiol.** , 70 , 523 - 537

ORAL PRESENTATION

- 1 . 平田たつみ 神経生物学 集中講義 島根大学 生物資源科学部 2/17-19
- 2 . 平田たつみ 神経発生学 集中講義 大阪大学 基礎工学部 5/27-28

POSTER PRESENTATIONS

- 1 . Suzuki, I.,Gojobori, T.,Hirata, T 「 Conservation of developmental mechanisms in evolutionarily divergent brain structures 」, CDB Symposium 2010 , Kobe , 3/23
- 2 . 鈴木郁夫,五條堀孝,平田たつみ 「 Conservation of developmental mechanisms in evolutionarily divergent brain structures 」, 第43回日本発生生物学会大会 Satellite Workshop , 京都 , 6/20
- 3 . Suzuki, I.,Gojobori, T.,Hirata, T 「 Conservation of developmental mechanisms in evolutionarily divergent brain structures 」, Euro Evo Devo SYMPOSIA , Paris , 7/6-9
- 4 . 鈴木郁夫,五條堀孝,平田たつみ 「 神経前駆細胞の制御パターンの違いが生み出した大脳新皮質層構造の進化 」, 第33回日本神経科学学会年会 , 神戸 , 9/2
- 5 . 川崎能彦 ,平田たつみ 「 Interaction of Semaphorin signaling in the central olfactory projection 」, 第43回日本発生生物学会年会 , 京都 , 6/20-23
- 6 . Mita, S., Saga, Y., Werner, H.B., Nave, K-A, and T. Hirata 「 M6 proteins regulate axon outgrowth in mouse callosal neurons 」, 第33回日本神経科学学会年会 , 神戸 , 9/2-4

OTHERS

- 1 . 平田たつみ , 1 , JST さきがけ領域アドバイザー
- 2 . 平田たつみ , 1 , 日本神経科学学会男女共同参画推進委員長

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

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F-a. Mammalian Genetics Laboratory
Toshihiko Shiroishi

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Oka, A., Mita, A., Takada, Y., Koseki, H., and Shiroishi, T. (2010) Reproductive isolation in hybrid mice due to spermatogenesis defects at three meiotic stages. , **Genetics** , 186 , 339 - 351
- 2 . Matsushima, Y., Kikkawa, Y., Takada, T., Matsuoka, K., Seki, Y., Yoshida, H., Minegishi, Y., Karasuyama, H., and Yonekawa, H. (2010) An Atopic Dermatitis-Like Skin Disease with Hyper-IgE-Emia Develops in Mice Carrying a Spontaneous Recessive Point Mutation in the Traf3ip2 (Act1/CIKS) Gene. , **The Journal of Immunology** , 185 , 2340 - 2349
- 3 . Nishi, A., Ishii, A., Takahashi, A., Shiroishi, T., and Koide, T. (2010) QTL analysis of measures of mouse home-cage activity using B6/MSM consomic strains. , **Mammalian Genome** , 21 , 477 - 485
- 4 . Mori, K., Iwata, J., Miyazaki, M., Osada, H., Tange, Y., Yamamoto, T., Aiko, Y., Tamura, M., and Shiroishi, T. (2010) Bystander killing effect of thymidine kinase gene-transduced adult bone marrow stromal cells with ganciclovir on malignant glioma cells , **Neurol. Med. Chir.** , 50 , 545 - 553
- 5 . Uejima, A., Amano, T., Nomura, N., Noro, M., Yasue, T., Shiroishi, T., Ohta, K., Yokoyama, H. and Tamura, K. (2009) Anterior shift in gene expression precedes anteriormost digit formation in amniote limbs. , **Dev. Growth Differ.** , 52 , 223 - 234
- 6 . Takahashi, A., Tomihara, K., Shiroishi, T. and Koide, T. (2009) Genetic Mapping of Social Interaction Behavior in B6/MSM Consomic Mouse Strains. , **Behav. Genet.** , 40 , 366 - 376
- 7 . Komiyama, H., Aoki, A., Tanaka, S., Maekawa, H., Kato, Y., Wada, R., Maekawa, T., Tamura, M. and Shiroishi, T. (2009) Alu-derived cis-element regulates tumorigenesis-dependent gastric expression of GASDERMIN B (GSDMB) , **Genes and Genetic Systems** , 85 , 75 - 83
- 8 . Yamazaki, Y., Akashi, R., Banno, Y., Endo, T., Ezura, H., Fukami-Kobayashi, K., Inaba, K., Isa, T., Kamei, K., Kasai, F., Kobayashi, M., Kurata, N., Kusaba, M., Matuzawa, T., Mitani, S., Nakamura, T., Nakamura, Y., Nakatsuji, N., Naruse, K., Niki, H., Nitasaka, E., Obata, Y., Okamoto, H., Okuma, M., Sato, K., Serikawa, T., Shiroishi, T., Sugawara, H., Urushibara, H., Yamamoto, M., Yaoita, Y., Yoshiki, A. and Kohara, Y. (2009) NBRP databases: databases of biological resources in Japan. , **Nuc. Acid Res.** , 38 , 26 - 32

ORAL PRESENTATION

- 1 . 高田豊行 マウスMSM/Ms系統のゲノム解析 第24回モロシヌス研究会 阿蘇 9/17-9/18
- 2 . 城石俊彦 マウス亜種間コンソミック系統による複合形質の遺伝解剖 東京都臨床医学研

POSTER PRESENTATIONS

1. Takada, T., Mita, A., Wakana, S., Moriwaki, K., Yonekawa, H., and Shiroishi, T. 「 Age-associated change of energy metabolism are genetically dissected by mouse inter-subspecific consomic strains 」, 23th International Mammalian Genome Conference , Crete, Greece , 10/17-10/21
2. 高田豊行 「 多因子形質解析とその実験モデルマウスの開発 」, 第57回日本実験動物学会総会 , 京都 , 5/12-5/14
3. 高田豊行, 三田晃彦, 森脇和郎, 米川博通, 城石俊彦 「 マウス亜種間コンソミック系統群による加齢性エネルギー代謝表現型の遺伝解析 」, 第57回日本実験動物学会総会 , 京都 , 5/12-5/14
4. 高田豊行 「 マウス亜種間の表現型多様性とゲノム多型性に基づいた機能ゲノム学のためのデータベース 」, 日本遺伝学会第82回大会・ワークショップ「モデル動物における表現型解析の標準化と情報統合」, 札幌 , 9/20-9/22
5. 片岡太郎, 高田豊行, 城石俊彦 「 マウス亜種間コンソミック系統による抗肥満表現型の遺伝解析 」, 日本遺伝学会第82回大会 , 札幌 , 9/20-9/22
6. 田村 勝 「 bHLH型転写因子の遺伝子量効果とヒト4番染色体長腕部分重複症:モデルマウスRim4を用いた遺伝学的解析 」, 日本遺伝学会第82回大会・ワークショップ「マウス・ラットをモデルとした哺乳類遺伝学」, 札幌 , 9/20-9/22
7. 城石俊彦 「 マウス亜種間コンソミック系統を用いた多因子形質の遺伝解剖 」, 第24回日本糖尿病・肥満動物学会年会 , 大阪 , 1/23

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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. Morimoto M, Liu Z, Cheng HT, Winters N, Bader D, Kopan R. (2009) Canonical Notch signaling in the developing lung is required for determination of arterial smooth muscle cells and selection of Clara versus ciliated cell fate. , **Journal of cell science** , 123 , 213 - 224
2. Suzuki A, Igarashi K, Aisaki K, Kanno J, Saga Y. (2010) NANOS2 interacts with the CCR4-NOT deadenylation complex and leads to suppression of specific RNAs. , **Proc Natl Acad Sci U S A** , 107 , 3594 - 3599
3. Suzuki H, Saba R, Sada A, Saga Y. (2010) The Nanos3-3'UTR is required for germ cell specific NANOS3 expression in mouse embryos. , **PLoS One** , 18-5 , 9300 - 0
4. Oginuma M, Takahashi Y, Kitajima S, Kiso M, Kanno J, Kimura A, Saga Y. (2010) The oscillation of Notch activation, but not its boundary, is required for somite border formation and rostral-caudal patterning within a somite. , **Development** , , 0 - 0

ORAL PRESENTATION

1. 森本充 細胞間情報伝達が定める細胞分布が機能的臓器をつくる 細胞生物学特論II 東京薬科大学 5/7

POSTER PRESENTATIONS

1. Yumiko ,Saga.,Rie ,Saba.,Yuzuru,kato.,Atsushi Suzuki. 「 Molecular functions of Nanos2 as a switcher of sexual differentiation of germ cells 」, International Symposium on "Epigenome Network,Development and Reprogramming of Germ Cells" , Fukuoka , 11/22-24
2. Kazuteru Hasegawa,Yumiko Saga. 「 Periodic activation of retinoic acid signaling creates stage-dependent gene expression in Sertoli cells during mouse spermatogenesis 」, CSH symposium :Germ cells , Cold Spring Harbor, New York , 10-5/10/9
3. Rie Saba,Yumiko Saga 「 Nanos2 orchestrates the transcriptome in embryonic male germ cells 」, International Symposium on "Epigenome Network, Development and Reprogramming of Germ cells" , Fukuoka , 11/22-24
4. Yumiko,Saga.,Atsushi,Suzuki.,Aiko,Sada. 「 Functions of NANOS2 in the maintenance and differentiation of male germ lineage in mice 」, 43rd Annual Meeting fo the Japanese Society of Developmental Biologists , kyoto , 6/20-23
5. 大久保佑亮、相賀裕美子 「 The coupling mechanism to generate synchronized oscillation of segmentation clock in mice 」, Notch シグナル研究会 , 千葉 , 11/8-11/9
6. Atsushi Suzuki,Yumiko Saga 「 Interaction between Nanos2 and CCR4-NOT deadenylation complex is essential for male germ cell development in mouse 」, CSH symposium :Germ cells , Cold Spring Harbor, New York , 10-5/10/9
7. Ryo,Sugimoto.,Saga,Yumiko.,Yo-ichi,Nabeshima.,Shosei ,Yoshida. 「 Stem cell differentiation is controlled by their progeny in mouse spermatogenesis 」, 43rd Annual Meeting fo the Japanese Society of Developmental Biologists , kyoto , 6/20-23
8. Masato,Ota.,Nobuyuki,Itoh.,Hiroki,Kokubo.,Atsushi,Ohazama.,Yukishige,Kozawa.,Yumiko,Saga.,Paul,Sharpe.,Takashi,Kondo.,Taka,Nakahara.,Yoriaki,Kanri.,Takaaki,Aoba.,Sachiko,Iseki. 「 Wnt-signaling pathway is important for patterning of mammalian tooth roots in evolution and development 」, 43rd Annual Meeting fo the Japanese Society of Developmental Biologists ,

kyoto , 6/20-23

- 9 . Kazuteru, Hasegawa, Yumiko, Saga. 「 Periodic activation of retinoic acid signaling creates stage-dependent gene expression change in Sertoli cells during mouse spermatogenesis 」, 43rd Annual Meeting fo the Japanese Society of Developmental Biologists , , 6/20-23
- 10 . Yu, Takahashi, Yukuto, Yasuhiko, Yumiko, Saga, Jun, Kanno. 「 Segmentation and rostro-caudal patterning of somites is not essential for metameric pattern of vertebral body/intervertebral disc formation 」, 43rd Annual Meeting fo the Japanese Society of Developmental Biologists , kyoto , 6/20-23
- 11 . Ymiko, Saga 「 Molecular functions of Nanos2 as a switcher of sexual differentiation of germ cells 」, SDB-JSDB Joint Meeting , Albuquerque, New Mexico, United States , 8/5-8/9
- 12 . Yusuke Okubo , Yumiko Saga 「 The coupling mechanism to generate synchronized oscillation of segmentation clock in mice 」, SDB-JSDB Joint Meeting , Albuquerque, New Mexico , 8/5-8/9
- 13 . Aiko Sada, Yumiko Saga 「 Nanos2 is an intrinsic regulator for maintaining an undifferentiated state of spermatogonial stem cells 」, SDB-JSDB Joint Meeting , Albuquerque, New Mexico, United States , 8/5-8/9
- 14 . Yumiko Saga. 「 Functions of NANOS2 in the maintenance and differentiation of male germ lineage in mice 」, CSH symposium : Mouse development, Genetics and Genomics , Cold Spring Harbor, New York , 10/26-10/30
- 15 . Yumiko Saga 「 Function of NANOS2 in the embryonic germ cells and spermatogonial stem cells in mice 」, OzBio20101 , Melbourne, Australia , 9/26-10/1
- 16 . Ryo Sugimoto, Yumiko Saga, Yo-ichi Nabeshima, Shosei Yoshida 「 Differentiation of stem/progenitor spermatogonia is controlled by germ cells of advanced stages in mouse spermatogenesis 」, CSH symposium : Germ cells , Cold Spring Harbor, New York , 10-5/10/9
- 17 . Masashi Yamaji, Takashi Tanaka, Mayo Shigeta, Shinichiro Chuma, Yumiko Saga, Mitinori Saito 「 Functional reconstruction of Nanos3 expression in the germ cell lineage by a novel transgenic reporter reveals distinct subcellular localizations of Nanos3 」, CSH symposium : Germ cells , Cold Spring Harbor, New York , 10-5/10/9
- 18 . 13. 森本充 「 Signaling Regulates Epithelial Clara/Cilia Fate Selection and Mesenchymal Arterial SMC Determination During Lung Organogenesis 」, 国際分化学会 , 奈良 , 11/14-18
- 19 . 森本充, 相賀 裕美子, Rahael Kopan. 「 Notch signaling regulates the spatial balance among lung epithelial cell types 」, Notch研究会 , 千葉県野田 , 11/8-9
- 20 . 森本充, 相賀 裕美子, Rahael Kopan. 「 Notch Signaling Regulates Epithelial Clara/Cilia Fate Selection and Mesenchymal Vascular SMC Determination During Lung Organogenesis 」, 第33回分子生物学会年会 , 神戸ポートアイランド , 12/7-10
- 21 . Yumiko Saga 「 Functions of NANOS2 in the Maintenance of Embryonic Germ Cells and Spermatogonial Stem Cells in Mice 」, The First SKLRB Symposia on Frontiers in Periimplantation Biology , Beijing , 5/8-12
- 22 . Masahide, Sakabe, Osamu, Nakagawa, Yuji, Nakajima, Hiroki, Kokubo, Yumiko, Saga. 「 T-box transcription factor Tbx2 is a key factor in the pathogenesis of congenital heart diseases including transposition of great arteries 」, 第33回 日本分子生物学会 , 神戸 , 12/7-10
- 23 . Mitsuru, Morimoto, Yumiko, Saga, Kopan, Raphael. 「 Notch Signaling Regulates Epithelial Clara/Cilia Fate Selection and Mesenchymal Vascular SMC Determination During Lung Organogenesis 」, 第33回 日本分子生物学会 , 神戸 , 12/7
- 24 . 香川尚子, 堀哲也, 保木裕子, 佐渡敬, 山縣一夫, 小久保博樹, 相賀裕美子, 深川竜郎 「 遺伝子欠損マウスを用いたCENP-O複合体の機能解析 」, 第33回 日本分子生物学会 , 神戸 , 12/7-10
- 25 . Moe, Matsuo, Yumiko, Saga, Hiroyuki, Takeda, Sumito, Koshida. 「 Analysis of the cytoplasmic protein Ktu function in axonemal dynein formation during motile cilogenesis 」, 第33回 日本分子生物学会 , 神戸 , 12/7-10
- 26 . Mitsuru, Morimoto, Yumiko, Saga, Kopan, Rahael. 「 Notch Signaling Regulates Epithelial Clara/Cilla Fate Selection and Mesenchymal Vascular SMC Determination During Lung Organogenesis 」, 第33回 日本分子生物学会 , 神戸 , 12/7
- 27 . 三好慶, 相賀裕美子, 鈴木敦 「 マウス雄性生殖細胞の発生におけるNANOS2とCCR4-NOT deadenylaseの結合意義についての解析 」, 第33回 日本分子生物学会 , 神戸 , 12/7

EDUCATION

- 1 . Kenji Matsuno, Yumiko Saga 遺伝研研究会 Notch シグナル研究会 千葉 11/8-11/9

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

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F-c. Mouse Genomics Resource Laboratory
Tsuyoshi Koide

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Kubota, T., Miyake, K., Hirasawa, T., Nagai, K., Koide, T. (2010) Novel etiological and therapeutic strategies for neurodiseases: Epigenetic understanding of gene-environment interactions , **J Pharmacological Sciences** , 113 , 3 - 8
- 2 . Takahashi, A., Shimamoto, A., Boyson, C., deBold, J.F., Miczek, K.A. (2010) GABA(B) receptor modulation of serotonin neurons in the dorsal raphé nucleus and escalation of aggression in mice. , **Journal of Neuroscience** , 30 , 11771 - 11780
- 3 . Takahashi, A., Kwa, C., deBold, J.F., Miczek, K.A. (2010) GABA(A) receptors in the dorsal raphé nucleus of mice: escalation of aggression after alcohol consumption. , **Psychopharmacology** , 211 , 467 - 477
- 4 . Takahashi, A., Quadros, I.M., de Almeida, R.M., Miczek, K.A. (2010) Brain serotonin receptors and transporters: initiation vs. termination of escalated aggression. , **Psychopharmacology** , 213 , 183 - 212
- 5 . Takahashi, A., Tomihara, K., Shiroishi, T., Koide, T. (2010) Genetic mapping of social interaction behavior in B6/MSM consomic mouse strains. , **Behavior Genetics** , 40 , 366 - 376
- 6 . Nishi, A., Ishii, A., Takahashi, A., Shiroishi, T., Koide, T. (2010) QTL analysis of measures of mouse home-cage activity using B6/MSM consomic strains. , **Mammalian Genome** , 21 , 477 - 485
- 7 . Tanaka, N., Waki, K., Kaneda, H., Suzuki, T., Yamada, I., Furuse, T., Kobayashi, K., Motegi, H., Toki, H., Inoue, M., Minowa, O., Noda, T., Takao, K., Miyakawa, T., Takahashi, A., Koide, T., Wakana, S., Masuya, H. (2010) SDOP-DB: a comparative standardized-protocol database for mouse phenotypic analyses. , **Bioinformatics** , 26 , 1133 - 1134
- 8 . Dowse, H., Umemori, J., Koide, T. (2010) Ultradian components in the locomotor activity rhythms of the genetically normal mouse, *Mus musculus*. , **The Journal of Experimental Biology** , 213 , 1788 - 1795

ORAL PRESENTATION

- 1 . Koide, T. Attempts toward understanding genetic basis of non-Mendelian inheritance: behavior and genetic incompatibility Institute of Molecular Genetics of Montpellier, Montpellier, France 10/22
- 2 . 小出剛 野生由来マウス系統間にみられる行動多様性の遺伝的基盤 放射線医学総合研究所セミナー 放射線医学総合研究所・千葉 11/11

POSTER PRESENTATIONS

1. 杉本大樹,菊水健史,城石俊彦,小出剛 「マウス交配行動時の超音波発声の役割」, 第57回日本実験動物学会, 京都, 5/12
2. 杉本大樹,高橋阿貴,城石俊彦,小出剛 「アセチルコリン受容体モジュレーターLynx1のマウス攻撃行動への関与」, Neuro2010, 神戸, 9/4
3. Tanave, A., Ishii, A., Shiroishi, T., Takahashi, A., Koide, T. 「Genetic study of anxiety-like behaviors characteristic of wild mice」, Neuro2010, 神戸, 9/2
4. 梅森十三、宇野毅明、湯浅茂樹、小出剛 「Epigenetic abnormality of genetic incompatibility mouse, Genic mice」, 第33回日本分子生物学会年会, 神戸, 9/3
5. 梅森十三、宇野毅明、湯浅茂樹、小出剛 「遺伝的不適合マウスにおけるエピジェネティック異常」, 第82回日本遺伝学会, 札幌, 9/20
6. Umemori, J., Uno, T., Mori, A., Yuasa, S., Koide, T. 「Dysmyelination and tremor caused by genetic incompatibility in mice」, Neuroscience 2010, San Diego, 11/14
7. Takahashi, A., Shimamoto, A., Boyson, C.O., DeBold, J.F., Koide, T., Miczek, K.A. 「GABA(B) receptor modulation of serotonin neurons in the dorsal raphé nucleus: escalation of aggression in mice」, Neuroscience 2010, San Diego, 11/16
8. Takahashi, A., Shimamoto, A., Boyson, C.O., Koide, T., DeBold, J.F., Miczek, K.A. 「GABAB receptor modulation of serotonin neurons in the dorsal raphé nucleus escalates aggression in mice」, Neuro2010, 神戸, 9/3
9. 高橋阿貴,Kwa, C., deBold, J.F., Miczek, K.A. 「アルコールによる過剰な攻撃行動の個体差: マウス背側縫線核GABAA受容体の役割」, 日本動物心理学会第70回大会, 東京, 8/28
10. 小出剛 「時間依存的な活動量に関わる遺伝的要因の解析」, 第17回日本時間生物学会学術大会, 東京, 11/20-21
11. Ishii, A., Nishi, A., Shiroishi, T., Takahashi, A., Koide, T. 「Consomic analysis of genetic factors related to temporal difference of home-cage activity between B6 and MSMM.」, 24th International Mammalian Genome Conference, Crete, Greece, 10/17-21
12. 小出剛, 石井亜矢子, 西明紀, 田邊彰, 城石俊彦, 高橋阿貴 「マウス行動の多様性を生み出す遺伝-環境要因」, 第82回日本遺伝学会大会, 札幌, 9/20-23
13. 石井亜矢子, 西明紀, 高橋阿貴, 城石俊彦, 小出剛 「時間依存的な自発活動量の系統差に関わる多因子の遺伝学的解析」, 第33回日本分子生物学会年会, 神戸, 12/7-10

EDUCATION

1. 小出剛 脳における遺伝子-環境相互作用の分子メカニズム 第82回日本遺伝学会大会 ワークショップ 札幌 9/20-23

BOOK

1. 田邊彰 (2010) 動物家畜化の鍵となる従順さの選択 一家畜化によって現れた様々な変化との関連 遺伝 102 - 104

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

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F-d. Model Fish Genomics Resource
Noriyoshi Sakai

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

1 . Kawasaki, T.,Saito, K.,Shinya, M.,Olsen, LC.,Sakai, N. (2010) Regeneration of spermatogenesis and production of functional sperm by grafting of testicular cell aggregates in zebrafish. , **Biol. Reprod.** , 83 , 533 - 539

POSTER PRESENTATIONS

- 1 . 新屋みのり,酒井則良 「ゼブラフィッシュ近交系樹立の試み」, 第16回小型魚類研究会, 埼玉,
- 2 . Shinya, M.,Kimura, T.,Shimada, A.,Sakai, N.,Inoko, H.,Takeda, H.,Naruse, K. 「Genetic analysis of individual differences in craniofacial morphology using medaka」, Model Organisms to Human Biology , ,
- 3 . Shinya, M.,Sakai, N. 「Trials for the establishment of zebrafish inbred strains」, International Conference on Zebrafish Development and Genetics , ,
- 4 . Saito, K.,Sakai, N. 「Isolation and cytogenetic characterization of zebrafish mutants affecting meiotic prophase I」, 第42回日本発生生物学会年会, 京都, 6/20-6/23
- 5 . Saito, K.,Sakai, N. 「Isolation and cytogenetic characterization of zebrafish meiotic prophase I mutants」, International symposium on "Epigenome network, development and reprogramming of germ cells" , Fukuoka , 11/22-11/24

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

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F-e. Plant Genetics Laboratory
Nori Kurata

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Ammiraju, J.S.S., Song, X., Luo, M., Sisneros, N., Angelova, A., Kudrna, D., Kim, H.R., Yu, Y., Goicoechea, J.L., Lorieux, M., Kurata, N., Brar, D., Ware, D., Jackson, S., and Wing, R.A.. (2010) The *Oryza* BAC resource: a genus-wide and genome scale tool for exploring rice genome evolution and leveraging useful genetic diversity from wild relatives. , **Breeding Science** , 60 , 536 - 543
- 2 . Kurata, N., Satoh, H., Kitano, H., Nagato, Y., Endo, T., Sato, K., Akashi, R., Ezura, H., Kusaba, M., Kobayashi, M., Nitasaka, E., Kasai, F., Yamazaki, Y., and Yoshimura, Y. (2010) NBRP, National Bioresource Project of Japan and plant bioresource management , **Breeding Science** , 60 , 461 - 468
- 3 . Yamazaki, Y., Sakaniwa, S., Tsuchiya, R., Nonomura, K. I., and Kurata, N. (2010) Oryzabase: an integrated information resource for rice science , **Breeding Science** , 60 , 544 - 578
- 4 . Yamaki, S., Miyabayashi, T., Eiguchi, M., Kitano, H., Nonomura, K. I., and Kurata, N. (2010) Diversity of panicle branching patterns in wild relatives of rice , **Breeding Science** , 60 , 586 - 596
- 5 . Nonomura, K. I., Morishima, H., Miyabayashi, T., Yamaki, S., Eiguchi, M., Kubo, T., and Kurata, N. (2010) The wild *Oryza* collection in National BioResource Project (NBRP) of Japan: History, biodiversity and utility , **Breeding Science** , 60 , 502 - 508
- 6 . Fujita, M., Horiuchi, Y., Ueda, Y., Mizuta, Y., Kubo, T., Yano, K., Yamaki, S., Tsuda, K., Nagata, T., Niihama, M., Kato, H., Kikuchi, S., Hamada, K., Mochizuki, T., Ishimizu, T., Iwai, H., Tsutsumi, N., Kurata, N. (2010) Rice expression atlas in reproductive development , **Plant Cell Physiol.** , 51 , 2060 - 2081
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- 9 . Fujii, S., Yamada, M., Fujita, M., Itabashi, E., Hamada, K., Yano, K., Kurata, N., and Toriyama, K. (2010) Cytoplasmic-nuclear genomic barriers in rice pollen development revealed by comparison of global gene expression profiles among five independent

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- 1 . 水多陽子, 春島嘉章, 倉田のり 「 イネ亜種間交雑で生殖的隔離を引き起こす重複遺伝子DPL1, 2の解析 」, 日本遺伝学会第82回大会, 札幌市, 9/20-23
- 2 . 坂庭真悟, 土屋里枝, 高橋由佳, 野々村賢一, 宮林登志江, 久保貴彦, 倉田のり, 山崎由紀子 「 Improvement to Oryzabase; Integrated Rice Science Database 」, BMB2010(第33回日本分子生物学会年会 第83回日本生化学会大会 合同大会), 神戸, 12/7-10
- 3 . 須崎大地, 永田俊文, 上田美那子, 佐々木成江, 倉田のり, 東山哲也 「 顕微鏡操作と大規模発現解析により被子植物雌性配偶体の発生と機能獲得機構に迫る 」, BMB2010(第33回日本分子生物学会年会 第83回日本生化学会大会 合同大会), 神戸, 12/7-10
- 4 . 永田俊文, 望月孝子, 大柳一, 長崎英樹, 神沼英里, 中村保一, 会津智幸, 豊田敦, 藤山秋佐夫, 倉田のり 「 高速シーケンサーを用いたイネ近縁種の比較ゲノム解析 」, BMB2010(第33回日本分子生物学会年会 第83回日本生化学会大会 合同大会), 神戸, 12/7-10
- 5 . 野々村賢一, 永口貢, 宮崎さおり, 米田典央, 宮尾安藝雄, 廣近洋彦, 倉田のり 「 植物の減数分裂前G1/S移行を制御する新規RRM蛋白質の解析 」, BMB2010(第33回日本分子生物学会年会 第83回日本生化学会大会 合同大会), 神戸, 12/7-10
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- 7 . 野々村賢一, 永口貢, 宮崎さおり, 米田典央, 宮尾安藝雄, 廣近洋彦, 倉田のり 「 植物の減数分裂前G1/S移行を制御する新規RRM蛋白質の解析 」, BMB2010(第33回日本分子生物学会年会 第83回日本生化学会大会 合同大会), 神戸, 12/7-10
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- 9 . Tsuda, K., Sato, Y., Ito, Y., Kurata, N. 「 Positive Autoregulation of *KNOX* genes in rice 」, 第2回NIBB-MPIZ合同シンポジウム「Plant Science Communications 2010」, 岡崎, 11/16-18
- 10 . Kurata N. 「 Various Reproductive Barriers in the Hybrids and Its Relation to Evolution 」, 8th International Symposium on Rice Function Genomics , Bento Gonçalves , 10/18-20
- 11 . Ohyanagi, H., Kaminuma, E., Nagata, T., Mochizuki, T., Nagasaki, H., Nakamura, Y., Aizu, T., Toyoda, A., Fujiyama, A., Kurata, N. 「 TOWARDS THE DRAFT GENOME SEQUENCE OF *ORYZA OFFICINALIS*: THE INITIAL LANDMARK IN *ORYZA* CC GENOMES 」, 8th International Symposium on Rice Function Genomics , Bento Gonçalves , 10/18-20
- 12 . 木下哲, 大西孝幸, 石川亮, 木下由紀, 永口貢, 倉田のり 「 高等植物は胚乳における種の障壁成立のルールとメカニズム 」, 日本遺伝学会第82回大会, 札幌市, 9/20-23
- 13 . M. Shenton, 倉田のり 「 Cゲノムとの種間交配における*O. sativa*花粉管伸長停止の特性解析 」, 日本育種学会 第118回講演会, 秋田市, 9/23-26
- 14 . 濱田和輝, 本郷耕平, 山本直樹, 藤井貴朗, 望月孝子, 諏訪部圭太, 倉田のり, 矢野健太郎 「 *OryzaExpress*: イネの遺伝子発現ネットワーク解析とデータベース構築 」, 日本育種学会 第118回講演会, 秋田市, 9/23-26
- 15 . 水多陽子 「 イネ亜種間雑種で花粉不発芽を引き起こす重複遺伝子DPL1, 2の解析 」, 科学研究費特定領域研究「植物ゲノム障壁」若手ワークショップ, 名古屋市, 7/12-13
- 16 . 市川裕章, 槌田(間山)智子, 飯田(岡田)恵子, 堀川明彦, 宮尾安藝雄, 保坂アエニ, 永田俊文, 菊池尚志, 光田展隆, 瀧口裕子, 石塚徹, 佐藤和人, 松井恭子, 高木優, 長村吉晃 「 種イネ転写因子cDNAの過剰発現およびキメラリプレッサー発現イネ系統の作出と表現型解析 」, イネ遺伝学・分子生物学ワークショップ2010, つくば市, 7/2-3

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18. Kurata, N., Mizuta, Y., Kubo, T., Ohyanagi, H., Horiuchi, Y., Harushima, Y. 「Genome barriers in the reproductive process of rice」, International Symposium of Cell-Cell Communication in Plant Reproduction, 奈良, 3/11-12
19. Mizuta, Y., Harushima, Y., Kurata, N. 「Analysis of a pair of genes, DOPPELGANGER (DPL) 1 and DPL2 responsible for reproductive isolation between two rice subspecies」, International Symposium of Cell-Cell Communication in Plant Reproduction: from pollination to fertilization, 奈良, 3/11-12
20. 水多陽子, 春島嘉章, 倉田のり 「イネ亜種間交雑で生殖的隔離を引き起こすDOPPELGANGER(DPL)1およびDPL2遺伝子の解析」, 第51回日本植物生理学会年会, 熊本, 3/18-21
21. 水多陽子, 春島嘉章, 倉田のり 「イネ亜種間交雑で生殖的隔離を引き起こすDOPPELGANGER(DPL)1とDPL2の解析」, 日本育種学会第117回講演会, 京都, 3/26-27
22. 高梨秀樹, 大西孝幸, 茂木美来, 菊地俊介, 矢野健太郎, 岡本龍史, 藤田雅丈, 倉田のり, 堤伸浩 「イネ雌性配偶体構成細胞における遺伝子発現プロファイリング」, 第51回日本植物生理学会年会, 熊本, 3/18-21
23. 大原圭子, 岩野恵, 小川宣仁, 柴博史, 藤田雅丈, 倉田のり, 高山誠司 「アブラナ科植物の雌ずい乳頭細胞で特異的に発現する遺伝子群の解析」, 第51回日本植物生理学会年会, 熊本, 3/18-21
24. 柴博史, 栢部健人, 樽谷芳明, 藤田雅丈, 倉田のり, 矢崎潤史, Joseph Ecker, 磯貝彰, 高山誠司, 「シロイヌナズナゲノムタイリングアレイを用いたメチローム・トランスクリプトーム統合解析」, 第51回日本植物生理学会年会, 熊本, 3/18-21
25. 永田俊文, 神沼英里, 大柳一, 望月孝子, 中村保一, 会津智幸, 藤山秋佐夫, 豊田敦, 倉田のり 「次世代高速シーケンサー自動解析パイプラインによるイネ近縁種ゲノム解析」, 第51回日本植物生理学会年会, 熊本, 3/18-21
26. 濱田和輝, 山本直樹, 諏訪部圭太, 望月孝子, 倉田のり, 矢野健太郎 「イネの遺伝子発現ネットワークの構築」, 第51回日本植物生理学会年会, 熊本, 3/18-21
27. 永田俊文, 神沼英里, 大柳一, 望月孝子, 中村保一, 会津智幸, 藤山秋佐夫, 豊田敦, 倉田のり 「次世代高速シーケンサー自動解析パイプラインによるイネ近縁種ゲノム解析」, 日本育種学会第117回講演会, 京都, 3/26-27
28. 濱田和輝, 山本直樹, 望月孝子, 諏訪部圭太, 倉田のり, 矢野健太郎 「イネの遺伝子発現ネットワーク構築」, 日本育種学会第117回講演会, 京都, 3/26-27
29. Shenton, M., Kurata, N. 「Quantification of barriers to pollen tube elongation in interspecific crosses of *Oryza*」, 日本育種学会第117回講演会, 京都, 3/26-27

EDUCATION

1. 長戸康郎, 倉田のり イネ分子遺伝学の展望 国立遺伝学研究所研究会 三島 11/12-13
2. 倉田のり 特定領域研究「植物ゲノム障壁」2010年度若手ワークショップ 名古屋 7/12-13
3. 倉田のり 特定領域研究「植物ゲノム障壁」2010年度班会議 東京 10/27-28
4. 磯貝彰, 倉田のり, 渡辺正夫 International Symposium of Cell-Cell Communication in Plant Reproduction: from pollination to fertilization 学術創成研究「植物自家不和合性」、特定領域研究「植物ゲノム障壁」、若手研究(S)「アブラナ科自家不和合性」共催国際シンポジウム 奈良 3/11-12

OTHERS

1. 倉田のり, 1, 日本育種学会会長
2. 濱田和輝, 山本直樹, 望月孝子, 諏訪部圭太, 倉田のり, 矢野健太郎, 2, 第117回講演会日本育種学会優秀発表賞
3. 水多陽子, 春島嘉章, 倉田のり, 2, 第117回講演会日本育種学会優秀発表賞

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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., Miyabe, I., Tsutsui, Y., Paderi F., Kakusho, N., Masai, H., Niki, H., Carr AM., (2010) DDK phosphorylates checkpoint clamp component Rad9 and promotes its release from chromatin, **Molecular Cell**, 24, 606 - 618
2. Furuya, K., Niki, H. (2010) The DNA damage checkpoint regulates a transition between yeast and hyphal growth in *Schizosaccharomyces japonicus*, **Molecular and cellular Biology**, 30, 2909 - 2917
3. AOKI, K., NAKAJIMA, R., Furuya, K., and Niki, H. (2010) Novel episomal vectors and a highly efficient transformation procedure for the fission yeast *Schizosaccharomyces japonicus*, **Yeast**, 27, 1049 - 1060

POSTER PRESENTATIONS

1. FURUYA, Kanji., Miyabe, I., Tsutsui, Y., Kakusho, N., Masai, H., Paderi F., Carr AM., Niki, H. 「DDK phosphorylates checkpoint clamp Rad9 and promotes its release from damaged chromatin」, 7th 3R symposium, Toyama, 10/26-30
2. Furuya, K., Miyabe, I., Kakusho, N., Masai, H., Carr AM., Niki, H. 「DDK phosphorylates checkpoint clamp Rad9 and promotes its release from damaged chromatin」, International Conference on Radiation and Cancer Biology, Nagasaki, 2010
3. Furuya, K., Miyabe, I., Tsutsui, Y., Kakusho, N., Masai, H., Carr AM., Niki, H. 「DDK phosphorylates checkpoint clamp Rad9 and promotes its release from damaged Chromatin」, The 57th NIBB conference, Okazaki, 10/14-16
4. Furuya, K., Miyabe, I., Tsutsui, Y., Paderi F., Kakusho, N., Masai, H., Carr AM., Niki, H. 「DDK phosphorylates checkpoint clamp Rad9 and promotes its release from damaged Chromatin」, 第53回放射線影響学会, 京都, 10/20-22
5. Furuya, K., Miyabe, I., Tsutsui, Y., Kakusho, N., Masai, H., Carr AM., Niki, H. 「DDK phosphorylates checkpoint clamp Rad9 and promotes its release from damaged Chromatin」, 33回部本分子生物学会年会, 神戸, 12/7-10
6. Furuya, K., Tsutsui, Y., Miyabe, I., Kakusho, N., Carr AM., Masai, H., Niki, H. 「DDK phosphorylates checkpoint clamp Rad9 and promotes its release from damaged Chromatin」, EMBO workshop, Freiburg, 7/20-25
7. 塩見 大輔 「大腸菌細胞骨格因子rodZ欠損株の抑圧変異体の解析から見た細菌の形態形成変化」, 第4回細菌学・若手コロッセウム, 静岡県伊豆市, 8/26-28
8. 塩見 大輔, 仁木 宏典 「大腸菌球状変異体rodZ欠損株の抑圧変異株の解析から見た球状から桿状への形態変化の機構」, 第7回21世紀大腸菌研究会, 熊本県南阿蘇, 6/3-4
9. 青木敬太, 古谷寛治, 仁木宏典 「ジャポニカス酵母菌における核膜動態の遺伝学的解析

」, 酵母遺伝学フォーラム第43回研究報告会, 奈良市, 9/9-11

10. AOKI, K., Furuya, K., Niki, H. 「 APC/C is involved in nuclear envelope dynamics during mitosis in *Schizosaccharomyces japonicus* 」, The 7th 3R Symposium, 富山市, 10/26-30

11. AOKI, K., Furuya, K., Niki, H. 「 APC/C is involved in nuclear envelope dynamics in *Schizosaccharomyces japonicus* 」, BMB2010(第33回日本分子生物学会年会・第83回日本生化学会大会 合同大会), 神戸市, 12/7-10

12. 青木敬太, 古谷寛治, 仁木 宏典 「 ジャポニカス分裂酵母菌における核膜動態の遺伝学的解析 」, 第28回染色体ワークショップ, 加賀市, 1/11-13

13. AOKI, K., Furuya, K., Niki, H. 「 APC/C is involved in nuclear envelope dynamics during mitosis in *Schizosaccharomyces japonicus* 」, The 57th NIBB conference Dynamic Genome, 岡崎市, 10/14-16

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F. GENETIC STRAINS RESEARCH CENTER
F-g. Invertebrate Genetics Laboratory

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Ryu Ueda

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Yamamoto-Hino,M., Kanie, Y., Awano, W., Aoki-Kinoshita, K. F., Yano, H., Nishihara, S., Okano, H., Ueda, R., Kanie, O., and Goto, S. (2010) Identification of Genes Required for Neural-Specific Glycosylation Using Functional Genomics. , **PLoS Genet.** , 6 , e1001254
- 2 . Midorikawa, R., Yamamoto-Hino, M., Awano, W., Hinohara, Y., Suzuki, E., Ueda, R., and Goto, S. (2010) Autophagy-dependent rhodopsin degradation prevents retinal degeneration in Drosophila. , **J Neurosci.** , 30 , 10703 - 70719
- 3 . Ueyama, M., Akimoto, Y., Ichimiya, T., Ueda, R., Kawakami, H., Aigaki, T., and Nishihara S (2010) Increased Apoptosis of Myoblasts in Drosophila Model for the Walker-Warburg Syndrome. , **PLoS ONE** , 5 , 11557 - 0

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- 1 . Shoko Nishihara, Morio Ueyama, Yoshihiro Akimoto, Tomomi Ichimiya, Toshiro Aigaki, Ryu Ueda 「 Apoptosis of myoblasts is increased in Drosophila model for Walker-Warburg syndrome. 」, 2010 Annual Conference of the Society for Glycobiology , Florida, USA , 11/7-10
- 2 . 上山 盛夫, 秋元 義弘, 一宮 智美, 上田 龍, 川上 速人, 相垣 敏郎, 西原 祥子 「 進行性筋ジストロフィー、ウォーカー・ワールブルク症候群のモデルとなるショウジョウバエO-マンノース転移酵素の突然変異体 」, 第33回日本分子生物学会年会 , 神戸 , 12月7-10日

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G. CENTER FOR GENETIC RESOURCE INFORMATION

G-a. Genetic Informatics Laboratory

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G-a. Genetic Informatics Laboratory

Yukiko Yamazaki

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Watanabe, M., Kinoshita, H., Nitta, M., Yukishita, R., Kawai, Y., Kimura, K., Taketomo, N., Yamazaki, Y., Tateno, Y., Miura, K., Horii, A., Kitazawa, H. and Saito, T. (2010) Identification of a new adhesin-like protein from *Lactobacillus mucosae* ME-340 with specific affinity to the human blood group A and B antigens. , **J. Appl. Microbiol.** , 109 , 927 - 935
- 2 . Yukiko Yamazaki, Sakaniwa, S., Tsuchiya, R., Nonomura, K., Kurata, N. (2010) Oryzabase: an integrated information resource for rice science , **Breeding Science** , 60 , 544 - 548
- 3 . Kurata, N., Satoh, H., Kitano, H., Nagato, Y., Endo, T., Sato, K., Akashi, R., Ezura, H., Kusaba, M., Kobayashi, M., Nitasaka, E., Kasai, F. , Yukiko Yamazaki, Yoshimura, A. (2010) NBRP, National Bioresource Project of Japan and plant bioresource management , **Breeding Science** , 60 , 461 - 468
- 4 . Yukiko Yamazaki, Ryo Akashi, Yutaka Banno, Takashi Endo, Hiroshi Ezura, Kaoru Fukami-Kobayashi, Kazuo Inaba, Tadashi Isa, Katsuhiko Kamei, Fumie Kasai, Masatomo Kobayashi, Nori Kurata, Makoto Kusaba, Tetsuro Matuzawa, Shohei Mitani, Taro Nakamura, Yukio Nakamura, Norio Nakatsuji, Kiyoshi Naruse, Hironori Niki, Eiji Nitasaka, Yuichi Obata, Hitoshi Okamoto, Moriya Okuma, Kazuhiro Sato, Tadao Serikawa, Toshihiko Shiroishi, Hideaki Sugawara, Hideko Urushibara, Masatoshi Yamamoto, Yoshio Yaoita, Atsushi Yoshiki, and Yuji Kohara (2010) NBRP databases: databases of biological resources in Japan , **Nucleic Acid Res.** , 38 , 26 - 32

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- 1 . Yukiko Yamazaki 「 Rice Phenotype Information in Oryzabase 」, Plant & Animal Genomes XVIII Conference , San Diego , 1/9-13
- 2 . Kimura, G., Watanabe, T., Sakaniwa, S., Saito, M., Yamakawa, T., Yamazaki, Y. 「 An Improved Version of "BioResource World" 」, Plant & Animal Genomes XVIII Conference , San Diego , 1/9-13
- 3 . Sakaniwa, S., Takahashi, Y., Tsuchiya, R., Saito, M., Yamakawa, T. 「 Oryzabase Ver.4: Data-Rich Rice Database With Rich User Interface 」, Plant & Animal Genomes XVIII Conference , San Diego , 1/9-13
- 4 . 山崎由紀子 「 バイオリソースデータベース: 15年の歩みと将来展望 」, ライフサイエンスの未来へ～10年先のデータベースを考える～ , 東京 , 10/5
- 5 . Yamazaki, Y. 「 Future Outlook for Databases from the perspective of Bioresources Databases 」, National Institute of Genetics International Symposium , Tokyo , 10/11

EDUCATION

1 . Gojobori, T., Imanishi, T., Bairoch, A., Gaudet, P., Hide, W., Kanehisa, M., Kania, R., Mizrachi, I., Mons, B., Nakamura, H., O'Donovan, C., Yon-Rhee, S., Richardson, L., Saito, K., Takagi, T., Toyoda, T., Twigger, S., White, O., Yamazaki, Y. Biocuration 2010 Tokyo 10/11-14

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G. CENTER FOR GENETIC RESOURCE INFORMATION G-b. Genome biology Laboratory

G. CENTER FOR GENETIC RESOURCE INFORMATION G-b. Genome biology Laboratory

Yuji Kohara

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Mangone, M., Manoharan, AP., Thierry-Mieg, D., Thierry-Mieg, J., Han, T., Mackowiak, S., Mis, E., Zegar, C., Gutwein, MR., Khivansara, V., Attie, O., Chen, K., Salehi-Ashtiani, K., Vidal, M., Harkins, TT., Bouffard, P., Suzuki, Y., Sugano, S., Kohara, Y., Rajewsky, N., Piano, F., Gunsalus, KC., and Kim, JK. (2010) The Landscape of *C. elegans* 3'UTRs. , **Science** , 329 , 432 - 435
- 2 . Ogura K, Okada T, Mitani S, Gengyo-Ando K, Baillie DL, Kohara Y, Goshima Y. (2010) Protein phosphatase 2A cooperates with the autophagy-related kinase UNC-51 to regulate axon guidance in *Caenorhabditis elegans*. , **Development** , 137 , 1657 - 1667
- 3 . Manickavelu A, Kawaura K, Oishi K, Shin-I T, Kohara Y, Yahiaoui N, Keller B, Suzuki A, Yano K, Ogihara Y (2010) Comparative gene expression analysis of susceptible and resistant near-isogenic lines in common wheat infected by *Puccinia triticina*. , **DNA RESEARCH** , 17 , 211 - 222
- 4 . Aoki K, Yano K, Suzuki A, Kawamura S, Sakurai N, Suda K, Kurabayashi A, Suzuki T, Tsugane T, Watanabe M, Ooga K, Torii M, Narita T, Shin-I T, Kohara Y, Yamamoto N, Takahashi H, Watanabe Y, Egusa M, Kodama M, Ichinose Y, Kikuchi M, Fukushima S, Okabe A, Arie T, Sato Y, Yazawa K, Satoh S, Omura T, Ezura H, Shibata D. (2009) Large-scale analysis of full-length cDNAs from the tomato (*Solanum lycopersicum*) cultivar Micro-Tom, a reference system for the Solanaceae genomics. , **BMC Genomics** , 30 , 210 -
- 5 . Yamazaki Y, Akashi R, Banno Y, Endo T, Ezura H, Fukami-Kobayashi K, Inaba K, Isa T, Kamei K, Kasai F, Kobayashi M, Kurata N, Kusaba M, Matuzawa T, Mitani S, Nakamura T, Nakamura Y, Nakatsuji N, Naruse K, Niki H, Nitasaka E, Obata Y, Okamoto H, Okuma M, Sato K, Serikawa T, Shiroishi T, Sugawara H, Urushibara H, Yamamoto M, Yaoita Y, Yoshiki A, Kohara Y. (2009) NBRP databases: databases of biological resources in Japan. , **Nucleic Acids Research** , 38 , D26 - D32

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G. CENTER FOR GENETIC RESOURCE INFORMATION
G-c. Comparative Genomics Laboratory

G. CENTER FOR GENETIC RESOURCE INFORMATION
G-c. Comparative Genomics Laboratory
Asao Fujiyama

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Taji, T., Komatsu, K., Katori, T., Kawasaki, Y., Sakata, Y., Tanaka, S., Kobayashi, M., Toyoda, A., Seki, M. and Shinozaki, K. (2010) Comparative genomic analysis of 1047 completely sequenced cDNAs from an Arabidopsis-related model halophyte, *Thellungiella halophila*. , **BMC Plant Biology** , 10 , 261 - 261
- 2 . Shang, W., Hori, T., Toyoda, A., Kato, J., Pendorf, K., Sakakibara, Y., Fujiyama, A., and Fukagawa, T. (2010) Chickens possess centromeres with both extended tandem repeats and short non-tandem-repetitive sequences , **Genome Research** , 20 , 1219 - 1228
- 3 . Ohnishi, Y., Totoki, Y., Toyoda, A., Watanabe, T., Yamamoto, Y., Tokunaga, K., Sakaki, Y., Sasaki, H., and Hohjoh, H. (2010) Small RNA class transition from siRNA/piRNA to miRNA during pre-implantation mouse development. , **Nucleic Acids Res.** , 38 , 5141 - 5151
- 4 . Takahashi, S., Takagi, H., Toyoda, A., Uramoto, M., Nogawa, T., Ueki, M., Sakaki, Y., and Osada H. (2010) Biochemical characterization of a novel indole prenyltransferase from *Streptomyces* sp. SN-593. , **J Bacteriol.** , 192 , 2839 - 2851
- 5 . Kuramochi-Miyagawa, S., Watanabe, T., Gotoh, K., Takamatsu, K., Chuma, S., Kojima-Kita, K., Shiromoto, Y., Asada, N., Toyoda, A., Fujiyama, A., Totoki, Y., Shibata, T., Kimura, T., Nakatsuji, N., Noce, T., Sasaki, H., and Nakano T. (2010) MVH in piRNA processing and gene silencing of retrotransposons. , **Genes Dev.** , 24 , 887 - 892
- 6 . Nishito, Y., Osana, Y., Hachiya, T., Pendorf, K., Toyoda, A., Fujiyama, A., Itaya, M., and Sakakibara, Y. (2010) Whole genome assembly of a natto production strain *Bacillus subtilis* natto from very short read data , **BMC Genomics** , 11 , 243 - 243
- 7 . Matsui, H., Taniguchi, Y., Inoue, H., Kobayashi, Y., Sakaki, Y., Toyoda, A., Uemura, K., Kobayashi, D., Takeda, S. and Takahashi, R. (2010) Loss of PINK1 in medaka fish (*Oryzias latipes*) causes late-onset decrease in spontaneous movement. , **Neurosci Res.** , 66 , 151 - 161
- 8 . Toh, H., Oshima, K., Toyoda, A., Ogura, Y., Ooka, T., Sasamoto, H., Park, SH., Iyoda, S., Kurokawa, K., Morita, H., Itoh, K., Taylor, TD., Hayashi, T. and Hattori, M. (2010) Complete genome sequence of the wild-type commensal *Escherichia coli* strain SE15, belonging to phylogenetic group B2. , **J Bacteriol.** , 192 , 1165 - 1166

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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 . Ryba T., Hiratani I., Lu J., Itoh M., Kulik M., Zhang J., Dalton S., Gilbert D.M. (2010) Evolutionarily conserved replication timing profiles predict long-range chromatin interactions and distinguish closely related cell types , **Genome Research** , 20 , 761 - 770
- 2 . Hiratani I., Gilbert D.M. (2010) Autosomal Lyonization of replication domains during early mammalian development , **Adv Exp Med Biol** , 695 , 41 - 58
- 3 . Pope B.D., Hiratani I., Gilbert D.M. (2009) Domain-wide regulation of DNA replication timing during mammalian development , **Chromosome Research** , 18 , 127 - 136
- 4 . Hiratani I., Ryba T., Itoh M., Rathjen J., Kulik M., Papp B., Fussner E., Bazett-Jones D.P., Plath K., Dalton S., Rathjen P.D., Gilbert D.M. (2009) Genome-wide dynamics of replication timing revealed by in vitro models of mouse embryogenesis , **Genome Research** , 20 , 155 - 169
- 5 . Maeshima, K., Hihara, S., and Eltsov, M. (2010) The structure of mitotic chromosomes: irregular folding of nucleosome fibers? , **Advances in Chromosome Science** , 3 , 72 - 75
- 6 . Matsuyama, S., Shimura, M., Fujii, M., Maeshima, K., Yumoto, H., Mimura, H., Sano, Y., Yabashi, M., Nishino, Y., Tamasaku, K., Ishizaka, Y., Ishikawa, T., and Yamauchi, K. (2010) Elemental mapping of frozen hydrated cells with cryo-scanning X-ray fluorescence microscopy. , **X-Ray Spectrometry** , 39 , 260 - 266
- 7 . Iino, H., Maeshima, K., Nakatomi, R., Kose, S., Hashikawa, T., Tachibana, T., and Imamoto, N. (2010) Live imaging system for visualizing nuclear pore complex (NPC) formation during interphase in mammalian cells. , **Genes Cells** , 15 , 647 - 660
- 8 . Maeshima, K., Iino, H., Hihara, S., Funakoshi T., Watanabe A., Nishimura M., Nakatomi R., Yahata K., Imamoto F., Hashikawa T., Yokota H., and Imamoto N. (2010) Nuclear pore formation but not nuclear growth is governed by cyclin-dependent kinases (Cdks) during interphase. , **Nat Struct Mol Biol** , 17 , 1065 - 1071
- 9 . Maeshima, K., Hihara, S., and Eltsov, M. (2010) Chromatin structure : does the 30-nm fibre exist in vivo? , **Curr Opin Cell Biol** , 22 , 291 - 297

ORAL PRESENTATION

- 1 . Kazuhiro Maeshima How is genome DNA compacted into a chromosome? Seminar at Cancer Research UK London, UK 1/25
- 2 . 前島一博 分裂期染色体内と核内のglobalなクロマチン構造 生理学研究所研究会「DNAの凝縮:物理から生理まで」 岡崎 3/10
- 3 . Kazuhiro Maeshima Mitotic Chromosome Structure: Irregular Folding of Nucleosome

Fibers? Seminar at MBL Woodshole, MA, USA 6/10

4. 前島一博 How is genome DNA compacted into a chromosome? 東京工業大学セミナー すすかけ台 6/30

5. 6/30 How is genome DNA compacted into a chromosome? 東京大学先端研セミナー 駒場 6/30

6. Kazuhiro Maeshima How is a long strand of DNA compacted into a chromosome? Seminar at University of Oxford Oxford, UK 10/21

7. Kazuhiro Maeshima X-ray imaging of human genome Current approaches and future perspectives on the human genome, transcriptome and proteome Nobel Forum, Karolinska Institute, Stockholm Sweden 1/19-20

8. Kazuhiro Maeshima How is genome DNA compacted into a chromosome? Seminar at Gurdon Institute Cambridge University, Cambridge, UK 1/22

POSTER PRESENTATIONS

1. Kazuhiro Maeshima 「Application of small molecules to elucidate cellular mechanisms: Nuclear pore formation is governed by Cyclin-dependent kinases in human cells.」, International Symposium on Cell Functions Mediated by Small Molecules, , Tsukuba, , 11/8

2. Kazuhiro Maeshima 「How is a long strand of DNA compacted into a chromosome?」, 12th Japanese-American Frontiers of Science Symposium (日米先端科学シンポジウム), Kazusa Arc, Chiba , 12/3-12/5

3. Kazuhiro Maeshima, Yoshinori Nishino, Yasumasa Joti, Kazuki Ito, Mikhail Eltsov, Tetsuya Ishikawa 「How is a long strand of genomic DNA organized into chromosome?」, 第48回日本生物物理学会年会 , 仙台 , 9/20-9/22

4. 日原さえら、白燦基、今本尚子、佐甲靖志、金城政孝、前島一博 「蛍光相関分光法で生細胞の分裂期染色体内部を見る」, 第9回核ダイナミクス研究会, 修善寺, 5/27-5/29

5. Kazuhiro Maeshima 「Mitotic Chromosome Structure: Irregular Folding of Nucleosome Fibers?」, 75th Cold Spring Harbor Symposium on Quantitative Biology “Nuclear organization and function”, CSHL, NY, USA , 6/3-6/7

6. Kazuhiro Maeshima 「How is genome DNA compacted into a chromosome?」, DNA and chromatin workshop at Kyoto University, Kyoto , 4/7

7. Chang Pack, Naoko Imamoto, Masataka Kinjo, Kazuhiro Maeshima 「How can we know the chromatin environment in living cells?」, DECODE Winter Workshop2010, 新潟県,

8. 白燦基, 今本尚子, 金城政孝, 前島一博 「蛍光相関分光法で生細胞の分裂期染色体内部を見る」, 第50回生物物理若手の会夏の学校, 愛知県,

9. Maeshima, K. 「How is a long strand of DNA compacted into a chromosome?」, IUBS International workshop Structural and functional diversity of the eukaryotic genome , Brno , 11/14-16

EDUCATION

1. 前島一博・永山國昭 生理学研究所研究会「DNAの凝縮:物理から生理まで」 岡崎 3月10日

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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

PUBLICATIONS

Papers

- 1 . Yoshimune,K.,Shirakihara, Y., Wakayama,M., Yumoto,I (2010) Crystal structure of salt-tolerant glutaminase from *Micrococcus luteus* K-3 in the presence and absence of its product L-glutamate and its activator Tris , **FEBS. J.** , 277 , 738 - 748
- 2 . Itou, H.,Watanabe, N.,Yao, M.,Shirakihara, Y.,Tanaka, I. (2010) Crystal structures of the multidrug binding repressor *Corynebacterium glutamicum* CgmR in complex with inducers and with an operator , **J Mol Biol** , 403 , 174 - 184

POSTER PRESENTATIONS

- 1 . Shirakihara, Y.,Tanikawa, H.,Yoshimune,K., Murakami S., Suzuki T., Yoshida M. 「 Crystallization of ATPsynthase 」, 生物物理48回年会 , 仙台 , 9/21

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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 . Yasunaga,K.,Kanamori,T.,Morikawa,R., Suzuki,E.,and Emoto,K. (2010) Dendrite reshaping of adult *Drosophila* sensory neurons requires matrix metalloproteinase-mediated modification of the basement membranes. , **Dev. Cell** , 18 , 621 - 632
- 2 . Midorikawa,R.,Yamamoto-Hino,M.,Hinohara,Y.,Suzuki,E.,Ueda,R.,and Goto,S. (2010) Autophagy-dependent rhodopsin degradation prevents retinal degeneration in *Drosophila*. , **J Neurosci.** , 30 , 10703 - 10719

POSTER PRESENTATIONS

- 1 . Tomoko Yamakawa, Takeshi Sasamura, Maiko Kanai, Emiko Suzuki, Mark E. Fortini, and Kenji Matsuno. 「 Function of a neurogenic gene, pecanex in Notch signaling. 」, 第5回 Notch研究会, 千葉, 11/8,11/9
- 2 . 堺谷裕太、野村朋子、松浦愛子、伊藤麻紀子、鈴木えみ子、灘野大太、松田幹、古川鋼一、岡島徹也 「 細胞外領域におけるO-GlcNAc修飾の新たな基質の同定 」, 糖鎖科学名古屋拠点 第8回「若手の力」フォーラム, 名古屋, 9/6
- 3 . 来栖光彦、Kai Zinn、鈴木えみ子 「 Intrinsic control of spatiotemporal change in N-cadherin expression in a developing neuron:a possible mechanism of neuronal circuit formation 」, 第33回日本分子生物学会年会, 神戸, 12/8
- 4 . 堺谷祐太、野村朋子、松浦愛子、伊藤麻紀子、鈴木えみ子、灘野大太、松田幹、古川鋼一、岡島徹也 「 細胞外領域におけるO-GlcNAc修飾の新たな基質の同定 」, 第33回日本分子生物学会年会, 神戸, 12/10

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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 . Kodama,Y., Kaminuma,E., Saruhashi,S., Ikeo,K., Sugawara,H., Tateno,Y., Nakamura,Y. (2010) Biological databases at DNA Data Bank of Japan in the era of next-generation sequencing technologies. , **Adv Exp Med Biol** , , 125 - 35
- 2 . Yamasaki, C., Murakami, K., Takeda, J., Sato, Y., Noda, A., Sakate, R., Habara, T., Nakaoka, H., Todokoro, F., Matsuya, A., Imanishi, T., and Gojobori, T. (2010) H-InvDB in 2009, extended database and data-mining resources for human genes and transcripts , **Nucleic Acids Res** , 38 , 626 - 632
- 3 . Takeda, J., Suzuki, Y., Sakate, R., Sato, Y., Gojobori, T., Imanishi, T.and Sugano, S. (2010) H-DBAS: Human-transcriptome DataBase for Alternative Splicing, update 2010 , **Nucleic Acids Res.** , 38 , 86 - 90
- 4 . Yoshida, S., Ogura, A., Ishikawa, K., Yoshida, A., Kohno, R., Yamaji, Y., Ikeo, K., Gojobori, T., Kono, T., Ishibashi, T. (2010) Gene expression profile of fibrovascular membranes from patients with proliferative diabetic retinopathy , **Br J Ophthalmol** , 94 , 795 - 801
- 5 . Xu, S., Kangwanpong, D., Seielstad, M., Srikummool, M., Kampuansai, J., Gojobori, T., Li, J., and The HUGO Pan-Asian SNP Consortium,85 authors. (2010) Genetic evidence supports linguistic affinity of Mlabri — a hunter-gatherer group in Thailand , **BMC Genomics** , 11 , 1 - 13
- 6 . Shimada, M., Hayakawa, Y., Takeda, J., Gojobori, T., and Imanishi, T. (2010) A comprehensive survey of human polymorphisms at conserved splice dinucleotides and its evolutionary relationship with alternative splicing , **BMC Evolutionary Biology** , 10 , 1 - 12
- 7 . Ezawa, K., Ikeo, K., Gojobori, T., Saitou, N. (2010) Evolutionary pattern of gene homogenization between primate-specific paralogs after human and macaque speciation using the 4-2-4 method , **Mol Biol Evol.** , 27 , 2152 - 2171
- 8 . Moolhuijzen, P., Kulski, JK., Dunn, DS., Schibeci, D., Barrero, R., Gojobori, T., Bellgard, M. (2010) The transcript repeat element: the human Alu sequence as a component of gene networks influencing cancer , **Funct. Integr. Genomics** , 10 , 307 - 319
- 9 . Adamczyk, P., Zenkert, C., Balasubramanian, PG., Yamada, S., Murakoshi, S., Sugahara, K., Hwang, JS., Gojobori, T., Holstein, TW., Ozbek, S. (2010) A non-sulfated chondroitin stabilizes membrane tubulation in cnidarian organelles , **J. of Biol Chem** , 285 , 25613 - 25623
- 10 . Nakamura, Y., Komiyama, T., Furue, M., Gojobori, T., and Akiyama, Y. (2010) CIG-DB: The database for human or mouse immunoglobulin and T cell receptor genes available

for cancer studies , **BMC Bioinformatics** , 11 , 1 - 9

11 . Hwang, JS., Takaku, Y., Momose, T., Adamczyk, P., Özbek, S., Ikeo, K., Khalturin, K., Hemmrich, G., Bosch, T., Holstein, T., David, C., and Gojobori, T. (2010) Nematogalectin, a nematocyst protein with GlyXY and Galectin domains, demonstrates nematocyte-specific alternative splicing in Hydra , **Proc. Natl. Acad. Sci. USA** , 107 , 18539 - 18544

12 . Takayama, K., Tsutsumi, S., Katayama, S., Okayama, T., Horie-Inoue, K., Ikeda, K., Urano, T., Kawazu, C., Hasegawa, A., Ikeo, K., Gojobori, T., Ouchi, Y., Hayashizaki, Y., Aburatani, H., Inoue, S. (2011) Integration of cap analysis of gene expression and chromatin immunoprecipitation analysis on array reveals genome-wide androgen receptor signaling in prostate cancer cells , **Oncogene** , 30 , 619 - 630

13 . Kobayashi, Y., Suzuki, Y., Itou, T., Ito, F., Gojobori, T., and Sakai, T. (2011) Evolutionary history of dog rabies in Brazil , **J. Gen. Virol.** , 92 , 85 - 90

14 . Kaminuma, E., Kosuge, T., Kodama, Y., Aono, H., Mashima, J., Gojobori, T., Sugawara, H., Ogasawara, O., Takagi, T., Okubo, K., Nakamura, Y. (2011) DDBJ Progress Report , **Nucl. Acids. Res.** , 39 , 22 - 27

15 . Gaudet, P., Bairoch, A., Field, D., Sansone, SA., Taylor, C., Attwood, TK., Bateman, A., Blake, JA., Bult, CJ., Cherry, JM., Chisholm, RL., Cochrane, G., Cook, CE., Eppig, JT., Galperin, MY., Gentleman, R., Goble, CA., Gojobori, T., Hancock, JM., Howe, DG., Imanishi, T., Kelso, J., Landsman, D., Lewis, SE., Mizrahi, IK., Orchard, S., Ouellette, BF., Ranganathan, S., Richardson, L., Rocca-Serra, P., Schofield, PN., Smedley, D., Southan, C., Tan, TW., Tatusova, T., Whetzel, PL., White, O., Yamasaki, C., on behalf of the BioDBCore working group. (2011) Towards BioDBcore: a community-defined information specification for biological databases. , **Nucl. Acids. Res.** , 39 , 7 - 10

16 . Gaudet, P., Bairoch, A., Field, D., Sansone, SA., Taylor, C., Attwood, TK., Bateman, A., Blake, JA., Bult, CJ., Cherry, JM., Chisholm, RL., Cochrane, G., Cook, CE., Eppig, JT., Galperin, MY., Gentleman, R., Goble, CA., Gojobori, T., Hancock, JM., Howe, DG., Imanishi, T., Kelso, J., Landsman, D., Lewis, SE., Mizrahi, IK., Orchard, S., Ouellette, BF., Ranganathan, S., Richardson, L., Rocca-Serra, P., Schofield, PN., Smedley, D., Southan, C., Tan, TW., Tatusova, T., Whetzel, PL., White, O., Yamasaki, C., on behalf of the BioDBCore working group. (2011) Towards BioDBcore: a community-defined information specification for biological databases. , **Database** , 2011 , 1 - 6

17 . 五條堀 孝 (2010) 研究は、自然を理解することへの挑戦 , 教育応援プロジェクト , 4 , 24 - 25

18 . 五條堀 孝 (2010) 新しい生命観に挑戦する , インキュビー (**incu-be**) , , 4 - 5

19 . Kaminuma, E., Mashima, J., Kodama, Y., Gojobori, T., Ogasawara, O., Okubo, K., Takagi, T. and Nakamura, Y. (2010) DDBJ launches a new archive database with analytical tools for next-generation sequence data , **Nucleic Acids Res.** , 38 , 1 - 6

20 . Horie M, Honda T, Suzuki Y, Kobayashi Y, Daito T, Oshida T, Ikuta K, Jern P, Gojobori T, Coffin JM, Tomonaga K. (2010) Endogenous non-retroviral RNA virus elements in mammalian genomes Identification of endogenous non-retroviral RNA virus elements in mammalian genomes , **Nature** , 463 , 84 - 87

21 . Oviedo, NJ., Morokuma, J., Walentek, P., Kema, IP., Gu, MB., Ahn, JM., Hwang, JS., Gojobori, T. and Levin, M. (2010) Long-range Neural and Gap Junction Protein-mediated Cues Epigenetically Control Polarity During Planarian Regeneration , **Developmental Biology** , 339 , 188 - 199

22 . Kobayashi Y, Suzuki Y, Itou T, Carvalho AA, Cunha EM, Ito FH, Gojobori T, Sakai T (2010) Low genetic diversities of rabies virus populations within different hosts in Brazil , **Infect Genet Evol.** , 10 , 278 - 283

23 . Chapman, JA., Hayakawa, S., Hirose, M., Hwang, JS., Ikeo, K., Nishimiya-Fujisawa, C., Ogura, A., Gojobori, T, Fujisawa, T., Steele, RE. and 63 authors. (2010) The Dynamic Genome of Hydra , **Nature** , 464 , 592 - 596

24 . Nakagawa S., Niimura Y., Miura K., Gojobori T. (2010) Dynamic evolution of translation initiation mechanisms in prokaryotes , **Proc Natl Acad Sci U S A.** , 107 , 6382 - 6387

ORAL PRESENTATION

1. 池尾 一穂 セルイノベーションにおけるデータ解析と拠点の役割 平成22年度セルイノベーション公開セミナー TEPIAホール 11/3
2. 池尾 一穂 ゲノムからみた生物の進化 遺伝学研究所月曜講義 進化遺伝学特論 国立遺伝学研究所 1/18
3. 池尾 一穂 バイオインフォマティクス 集中講義 上智大学大学院理工学研究科 6/12.19.26
4. 池尾 一穂 大規模配列比較から生命現象を理解できるか？比較進化学の視点から お茶の水女子大学 公開セミナー第26回バイオインフォマティクスへの招待 お茶の水女子大学 理学部 11/4
5. 五條堀 孝、今西規 「ヒト遺伝子統合データベースH-invDBの現状と今後」 製薬協 7/22
6. 五條堀 孝 「進化遺伝学特論」 遺伝学研究所月曜講義 国立遺伝学研究所 2/15
7. 五條堀 孝 「大量ゲノムDNA情報がもたらす生命科学の変革と情報技術のさらなる革新」 [日立ITユーザー会]科学技術分科会 TKP大手町カンファレンスセンター 3/16
8. 五條堀 孝 「ゲノム情報戦略と個別化医療への道」 千里ライフサイエンスセミナー「パーソナルゲノム時代の総合医療データベース戦略」 千里ライフサイエンスセンタービル(大阪) 5/21
9. Takashi Gojobori "Genomic evolution of the neural system"(Lecture) QCEG2010:OIST Summer School and workshop on quantitative evolutionary and comparative genomics OIST Seaside House (Okinawa) 5/26
10. 五條堀 孝 「最先端のゲノム科学が解き明かす『いのち』のみなもと」 沼津北ロータリークラブ例会 沼津東急ホテル(静岡県沼津市) 6/8
11. 五條堀 孝 「バイオ情報産業化の課題と将来ビジョン」 JBIC講演会 トップオブスクエア宴(東京) 6/17
12. Takashi Gojobori Genomic evolution of the neural system"(Lecture) POSCO International Center, POSTECH (Korea) 6/21
13. 五條堀 孝 「最近の研究事例について」(Lecture) 東京大学学生様ご来訪時セミナー 静岡県三島市 国立遺伝学研究所 9/29
14. 五條堀 孝 「大量ゲノム解析からみた生物の多様性と進化の研究の今後について-眼の起源と進化の研究を例として-」 名古屋市立大学 11/15
15. 五條堀 孝 「生命と知能の進化-集団遺伝学、分子進化学、バイオインフォマティクス-」(講義)「生命と知能の進化」 慶応義塾大学湘南藤沢キャンパス 11/16
16. 五條堀 孝 「ヒトゲノムにおける転写開始点の総分布とゲノムネットワーク」("A distribution of transcription start sites (TSS) over the human genome and the genome network regulation")(講演)「先端生命科学研究会」 慶応義塾大学湘南藤沢キャンパス(神奈川) 11/16

POSTER PRESENTATIONS

1. Kazuho Ikeo 「 Beyond Omics 」, 4th Symposium of Japanese-French Frontiers of Science, France, 1/22
2. 池尾 一穂 「 情報量から見た生命現象 」, 異分野融合シンポジウム 生命情報への挑戦～パーソナルゲノム時代の知識表現～, 東京, 3/28
3. Kazuho Ikeo 「 New system for Analysis of NGS Large Scale Data to Investigate Intracellular Molecular Mechanism 」, The 5th International conference on Genomics, 中国, 11/17
4. Kazuho Ikeo 「 Comparative analysis of gene expression for convergent evolution of camera eye between octopus and human 」, World Congress of Malacology 2010, Thailand, 7/19
5. 池尾 一穂 「 Transcriptome analysis and Informatics for the data of next gen sequencers 」, 日本進化学会 第12回東京大会(国際ワークショップ), 東京, 8/5
6. 池尾 一穂 「 メタゲノム・メタトランスクリプトームの現在と未来 」, 日本進化学会 第12回東京大会(ワークショップ), 東京, 8/3
7. 池尾 一穂 「 感覚器官の起原と多様化 」, 日本遺伝学会第82回大会, 札幌, 9/22
8. Kazuho Ikeo 「 Asian Models of Biocuration Related Activities 」, Biocuration2010, 東京, 10/13
9. Kazuho Ikeo 「 Data Integration Model and GUIs used in Human Genome Network

Platform」, Biocuration2010, 東京, 10/12

10. 五條堀 孝 「肝炎ウイルスデータベース構築とホストファクター研究への応用」, 厚生労働科研費4班合同会議, 東京, 1/6

11. 五條堀 孝 「総括「基礎研究の魅力と未来」」, 遺伝研60周年記念国際シンポジウム「夢みる遺伝学～そして生命(いのち)が好きになる～」, 東京, 1/30

12. 五條堀 孝 「「パーソナルゲノム時代のバイオメディカル情報戦略」」, 東海大学クリニカルバイオメディカル情報科学マスターコースシンポジウム、シンポジウム2010-癌の個別化医療の実現化を支援するバイオインフォマティクス・臨床試験-, 東京, 2/22

13. Takashi Gojobori 「“Evolutionary Origin of Camera-type Eye and its Implication to Evolution of Brain”」, 13th Conference of Peace through Mind Brain Science, 静岡県浜松市, 2/25

14. Takashi Gojobori 「“The Evolutionary Origin of Central Nervous System – An Approach from Comparative Gene Expression”」, Japan –Korea-China Bioinformatics Symposium, 東京, 3/1

15. 五條堀 孝 「「ゲノム情報と進化を考える」(特別講演)」, 国立遺伝学研究所研究会「大規模データの表現方法～次世代ゲノムシーケンサーからの効率的なデータ活用に向けて～」, 東京, 3/29

16. 五條堀 孝 「「遺伝子が語る脳のものがたり～最先端研究から見える脳の起源」」, 遺伝学研究所一般公開, 静岡県三島市, 4/3

17. 五條堀 孝 「「生命科学とITの融合～ゲノム研究最前線における情報大爆発～」(特別講演)」, 富士通フォーラム2010, 東京, 5/14

18. 五條堀 孝 「「ゲノムから読み解く生物の共通性と多様性-神経システムの進化-」」, 第12回進化学会東京大会, 東京, 8/4

19. Takashi Gojobori 「756. T. Gojobori (2010) “Genomic evolution of hepatitis C virus and its implication to understanding of dynamic molecular interaction with the host system”(基調講演)」, HCV2010 (第17回C型肝炎及び関連ウイルスに関する国際会議), 神奈川県横浜市, 9/10

20. Takashi Gojobori 「“～Medical Revolution in the Genome Information-oriented Society～”」, 「科学技術と産業」国際シンポジウム (International Symposium “Boosting Science and Technology through Industrial Collaboration 2010”), 東京, 10/6

21. Takashi Gojobori 「“A distribution of transcription start sites (TSS) over the human genome and the genome network regulation”」, International Workshop “Structural and Functional diversity of the Eukaryotic Genome”, Brno, Czech Republic, 10/16

22. Takashi Gojobori 「“Chance and Necessity in Evolutionary Formation of Connection between Sensory and Nervous Systems”」, An International Meeting honoring Jacques Monod on the 100th Anniversary of his birth and the 40th Anniversary of his book, Ravello, Italy, 10/22

23. Takashi Gojobori 「“Genome Exploration of the RNA Continent”」, Plenary Session of the Pontifical Academy of Sciences “The Scientific Legacy of the 20th Century”, Vatican City, 11/1

24. 五條堀 孝 「「ヒトゲノムにおける転写開始サイトの全分布」」, 遺伝学研究共同研究集会「個人ゲノム時代におけるヒトゲノムDNA多型研究」, 静岡県三島市, 11/19

EDUCATION

1. 五條堀 孝 遺伝研研究会「次世代シーケンサーを活用したゲノム多様性の研究」 静岡県三島市 国立遺伝学研究所 1/14

2. 五條堀 孝 遺伝研60周年記念国際シンポジウム「夢みる遺伝学～そして生命(いのち)が好きになる～」 一橋記念講堂(東京) 1/30

3. JST, CIB-DDBJ, NIG, KOBIC, KRIBB, SCBIT Japan-Korea-China Bioinformatics Symposium ANAインターコンチネンタルホテル東京(東京) 3/1

4. 北海道大学 異分野融合シンポジウム「生命情報への挑戦～パーソナルゲノム時代の知識表現～」 東京大学弥生講堂(東京) 3/28

5. JST, CIB-DDBJ, NIG, KOBIC, KRIBB, SCBIT The 9th Japan-Korea-China Bioinformatics Workshop and Bioinformatics Symposium SIBS (Shanghai Institutes for Biological Sciences, Shanghai, China) 4/20-4/23

6. 五條堀 孝(代表) セルイノベーションプロジェクト成果報告会 静岡県三島市 東レ総合

研修センター 9/17-9/18

7. 五條堀孝、館野義男 The 2nd East Asian Collaboration Meeting (Organizer) NBRP事務局東京連絡所(東京) 10/4

8. 五條堀 孝 (代表) 国立遺伝学研究所国際シンポジウム「バイオデータベースの未来」臨海副都心センター別館(東京) 10/11

9. 五條堀孝、今西規、池尾一穂 Biocuration 2010 臨海副都心センター別館/東京国際交流館(東京) 10/11-10/14

10. DNA鑑定学会 DNA鑑定学会第3回総会・大会 発明会館ホール(東京) 12/1-12/2

11. 五條堀研究所 遺伝情報分析研究室集中講義 静岡県三島市 国立遺伝学研究所 12/25

BOOK

1. 岩部直之、加藤和貴、菊野玲子、隈啓一、五條堀孝、後藤直久、藤博幸、長谷川政美、星山大介、宮澤三造、宮田隆、安永輝雄 (2010) 分子進化研究とデータベース 新しい分子進化学入門 189 - 193

OTHERS

1. 五條堀 孝, 3, Section Editor for BMC Genomics
2. 五條堀 孝, 3, Editorial Board of Genome Research
3. 五條堀 孝, 3, Associate Editor of PLoS Genetics
4. 五條堀 孝, 3, Associate Editor of Molecular Biology and Evolution
5. 五條堀 孝, 3, Editor of GENE
6. 五條堀 孝, 3, Editor of FEBS Letters
7. 五條堀 孝, 1, 日本進化学会評議員
8. 五條堀 孝, 1, 日本遺伝学会会長
9. 五條堀 孝, 1, DNA鑑定学理事長

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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 . Fujita M, Horiuchi Y, Ueda Y, Mizuta Y, Kubo T, Yano K, Yamaki S, Tsuda K, Nagata T, Niihama M, Kato H, Kikuchi S, Hamada K, Mochizuki T, Ishimizu T, Iwai H, Tsutsumi N, Kurata N. (2010) Rice expression atlas in reproductive development. , **Plant Cell Physiol.** , 51 , 2060 - 2081
- 2 . Horiuchi, Y., Harushima, Y., Fujisawa, H., Mochizuki, T., Kawakita, M., Sakaguchi, T., and Kurata N. (2010) A simple optimization can improve the performance of single feature polymorphism detection by Affymetrix expression arrays. , **BMC Genomics.** , 11 , 315 -
- 3 . Matsui A, Ishida J, Morosawa T, Okamoto M, Kim JM, Kurihara Y, Kawashima M, Tanaka M, To TK, Nakaminami K, Kaminuma E, Endo TA, Mochizuki Y, Kawaguchi S, Kobayashi N, Shinozaki K, Toyoda T, Seki M. (2010) Arabidopsis tiling array analysis to identify the stress-responsive genes , **Methods Mol Biol.** , 639 , 141 - 155
- 4 . Nakao M, Okamoto S, Kohara M, Fujishiro T, Fujisawa T, Sato S, Tabata S, Kaneko T, Nakamura Y. (2009) CyanoBase: the cyanobacteria genome database update 2010. , **Nucleic Acids Res.** , 38 , 379 - 381
- 5 . Kaminuma E, Mashima J, Kodama Y, Gojobori T, Ogasawara O, Okubo K, Takagi T, Nakamura Y. (2009) DDBJ launches a new archive database with analytical tools for next-generation sequence data. , **Nucleic Acids Res.** , 38 , 33 - 38
- 6 . Shirasawa, K., Isobe, S., Hirakawa, H., Asamizu, E., Fukuoka, H., Just, D., Rothan, C., Sasamoto, S., Fujishiro, T., Kishida, Y., Kohara, M., Tsuruoka, H., Wada, T., Nakamura, Y., Sato, S., and Tabata, S. (2010) SNP Discovery and Linkage Map Construction in Cultivated Tomato. , **DNA Res.** , 17 , 381 - 391
- 7 . Inagaki, S., Miura-Kamio, A., Nakamura, Y., Lu, F., Cui, X., Cao, X., Kimura, H., Saze, H., and Kakutani, T. (2010) Autocatalytic differentiation of epigenetic modifications within the Arabidopsis genome. , **EMBO J.** , 29 , 3496 - 3506
- 8 . Kodama, Y., Kaminuma, E., Saruhashi, S., Ikeo, K., Sugawara, H., Tateno, Y., and Nakamura, Y. (2010) Biological Databases at DNA Data Bank of Japan in the Era of Next-Generation Sequencing Technologies. , **Adv Exp Med Biol.** , 680 , 125 - 135
- 9 . Katayama, T., Arakawa, K., Nakao, M., Ono, K., Aoki-Kinoshita, K.F., Yamamoto, Y., Yamaguchi, A., Kawashima, S., Chun, H.W., Aerts, J., Aranda, B., Barboza, L.H., Bonnal, R.J., Bruskiwich, R., Bryne, J.C., Fernandez, J.M., Funahashi, A., Gordon, P.M., Goto, N., Groscurth, A., Gutteridge, A., Holland, R., Kano, Y., Kawas, E.A., Kerhornou, A., Kibukawa, E., Kinjo, A.R., Kuhn, M., Lapp, H., Lehvaslaiho, H., Nakamura, H., Nakamura, Y., Nishizawa, T., Nobata, C., Noguchi, T., Oinn, T.M., Okamoto, S., Owen, S., Pafilis, E., Pocock, M., Prins, P., Ranzinger, R., Reisinger, F., Salwinski, L., Schreiber, M., Senger, M.,

Shigemoto, Y., Standley, D.M., Sugawara, H., Tashiro, T., Trelles, O., Vos, R.A., Wilkinson, M.D., York, W., Zmasek, C.M., Asai, K., and Takagi, T. (2010) The DBCLS BioHackathon: standardization and interoperability for bioinformatics web services and workflows. , **J Biomed Semantics** , 1 , 8 - 8

10 . Shirasawa, K., Asamizu, E., Fukuoka, H., Ohyama, A., Sato, S., Nakamura, Y., Tabata, S., Sasamoto, S., Wada, T., Kishida, Y., Tsuruoka, H., Fujishiro, T., Yamada, M. and Isoe, S. (2010) An interspecific linkage map of SSR and intronic polymorphism markers in tomato. , **Theor Appl Genet** , 121 , 731 - 739

11 . Kaneko, T., Minamisawa, K., Isawa, T., Nakatsukasa, H., Mitsui, H., Kawaharada, Y., Nakamura, Y., Watanabe, A., Kawashima, K., Ono, A., Shimizu, Y., Takahashi, C., Minami, C., Fujishiro, T., Kohara, M., Katoh, M., Nakazaki, N., Nakayama, S., Yamada, M., Tabata, S. and Sato, S. (2010) Complete Genomic Structure of the Cultivated Rice Endophyte *Azospirillum* sp. B510. , **DNA Res.** , 17 , 37 - 50

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ORAL PRESENTATION

1 . 神沼英里, 望月孝子, 児玉悠一, 猿橋智, 菅原秀明, 大久保公策, 高木利久, 中村保一 次世代シーケンサの活用法 DBCLS AJACS講習会 DBCLS 6/4

2 . 神沼英里, 児玉悠一, 望月孝子 次世代シーケンサ配列の登録・データ解析 AJACS & 第22回DDBJing講習会 in 東京 DBCLS

3 . 中村保一 DDBJの紹介と配列データの検索 AJACS & 第22回DDBJing講習会 in 東京 DBCLS

4 . 中村保一 同源性検索と系統解析: BLASTとClustalW AJACS & 第22回DDBJing講習会 in 東京 DBCLS

POSTER PRESENTATIONS

1 . 望月孝子, 長崎英樹, 児玉悠一, 猿橋智, 神沼英里, 菅原秀明, 大久保公策, 高木利久, 中村保一 「DDBJ Read Annotation Pipeline: 新型シーケンサ由来配列データ解析パイプライン」, 第33回日本分子生物学会年会, 神戸, 12/7-10

2 . 神沼英里, 望月孝子, 児玉悠一, 猿橋智, 菅原秀明, 大久保公策, 高木利久, 中村保一 「次世代シーケンサのアーカイブDBとクラウド型解析パイプライン」, NIASシンポジウム「イネ遺伝学・分子生物学ワークショップ2010」, つくば, 7/2

3 . Eli Kaminuma, Takako Mochizuki, Yuichi Kodama, Satoshi Saruhashi, Hideaki Sugawara, Kousaku Okubo, Toshihisa Takagi, Yasukazu Nakamura 「DDBJ Read Annotation Pipeline: A web-based analytical tool for next-generation sequencing data」, ISMB 2010 : 18th Annual International Conference on Intelligent Systems for Molecular Biology, Boston, 7/11

4 . Eli Kaminuma, Takako Mochizuki, Yuichi Kodama, Satoshi Saruhashi, Hideaki Sugawara, Kousaku Okubo, Toshihisa Takagi, Yasukazu Nakamura 「DDBJ Sequence Read Annotation Pipeline; A cloud computing-based analytical tool for next-generation sequencing data」, 10th Cold Spring Harbor Laboratory/Wellcome Trust conference on Genome Informatics , ,

5 . 神沼英里, 望月孝子, 児玉悠一, 猿橋智, 菅原秀明, 大久保公策, 高木利久, 中村保一 「次世代シーケンサのアーカイブDBとクラウド型解析パイプライン」, 第148回農林交流センターワークショップ「次世代シーケンサーを利用したゲノム解析の実際」, つくば, 9/10

6 . 児玉悠一, 猿橋智, 神沼英里, 菅原秀明, 高木利久, 大久保公策, 中村保一 「DDBJ Sequence Read Archive / DDBJ Omics Archive」, 第33回日本分子生物学会年会, 神戸, 12/7-10

7 . Yasukazu Nakamura, Eli Kaminuma, Takako Mochizuki, Yuichi Kodama, Satoshi

Saruhashi, Hideki Nagasaki, Hideaki Sugawara, Toshihisa Takagi, Kousaku Okubo 「 DDBJ Read Annotation Pipeline: A cloud computing based analytical tool for next-generation sequencing data 」, RAP7 meeting , Tokyo , 10/14

8 . Eli Kaminuma, Hideki Nagasaki, Takako Mochizuki, Yuichi Kodama, Satoshi Saruhashi, Hideki Nagasaki, Hideaki Sugawara, Toshihisa Takagi, Kousaku Okubo 「 DDBJ Sequence Read Archive and a cloud computing based analytical pipeline 」, 2010 NIG Collaborative Research and Research Meeting: Toward Next Generation Studies of Biodiversity and Bioresources , Mishima , 11/29

9 . 青木考、長崎英樹、神沼英里、須田邦弘、川村信吾、矢野健太郎、辰本将司、水口洋平、豊田敦 「 マイクロトムゲノム配列解読 」, 第33回日本分子生物学会年会 , 神戸 , 12/7-10

10 . 永田俊文、大柳一、長崎英樹、望月孝子、神沼英里、中村保一、会津智幸、豊田敦、藤山秋佐夫、倉田のり 「 高速シーケンサーを用いたイネ近縁種の比較ゲノム解析 」, 第33回日本分子生物学会年会 , 神戸 , 12/7-10

11 . 長崎 英樹¹, 望月 孝子¹, 神沼 英里¹, 渡邊 成樹¹, 児玉 悠一¹, 猿橋 智¹, 菅原 秀明¹, 高木 利久^{1,3}, 大久保 公策^{1,2}, 中村 保一¹ 「 DDBJ Read Annotation Pipeline : 新型シーケンサ由来配列のクラウド型パイプライン 」, 第33回日本分子生物学会年会 , 神戸 , 12/7-10

12 . E Kaminuma 「 Quantification of spatio-temporal gene expression of Arabidopsis LucTag line using digital image sequence analysis 」, Phenome Subcommittee Forum, 21st international Conference on Arabidopsis Research , Yokohama ,

13 . Eli Kaminuma¹, Takako Mochizuki¹, Yuichi Kodama¹, Satoshi Saruhashi¹, Hideaki Sugawara¹, Kousaku Okubo^{1,2}, Toshihisa Takagi^{1,2}, Yasukazu Nakamura 「 Plant SNP annotation analysis using a web-based pipeline tool for next-generation sequencing data 」, 21st international Conference on Arabidopsis Research , Yokohama ,

14 . Hajime Ohyanagi^{1,2}, Eli Kaminuma¹, Toshifumi Nagata¹, Takako Mochizuki¹, Hideki Nagasaki¹, Yasukazu Nakamura¹, Tomoyuki Aizu¹, Atsushi Toyoda¹, Asao Fujiyama¹ and Nori Kurata¹ , 「 Towards the draft genome sequence of *Oryza officinalis*: the initial landmark in *Oryza* CC genomes 」, International Rice Genome Sequencing Project (IRGSP)

15 . Yuichi Kodama, Saruhashi Satoshi, Eli Kaminuma, Hideaki Sugawara, Toshihisa Takagi, Kousaku Okubo, Yasukazu Nakamura 「 DDBJ Sequence Read Archive / DDBJ Omics Archive 」, 4th Biocuration Conference , ,

16 . Nagasaki, H. 「 高速シーケンサーによるイネのゲノムワイドSNPの検出とその利用 」, BMB2010 ワークショップ , 神戸 , 12/7

EDUCATION

1 . 坊農秀雅, 中村保一 AJACS & 第22回DDBJing 講習会 in 東京 東京

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Kimura Akatsuki

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

1. Oginuma, M., Takahashi, Y., Kitajima, S., Kiso, M., Kanno, J., Kimura, A., Saga, Y. (2010) The oscillation of Notch activation but not its boundary is required for somite border formation and rostral-caudal patterning within a somite. , **Development** , 137 , 1515 - 1522
2. Kimura, A. (2010) 細胞サイズの定量生物学 , 生化学 , 82 , 302 - 305
3. Onami, S., Kimura, A. (2010) Modeling microtubule-mediated forces and centrosome positioning in *Caenorhabditis elegans* embryos. , **Methods in Cell Biology** , 97 , 437 - 453
4. Goshima, G., and Kimura, A. (2010) New look inside the spindle: microtubule-dependent microtubule generation within the spindle , **Current Opinion in Cell Biology** , 22 , 44 - 49

ORAL PRESENTATION

1. Kimura, A. 体節形成遺伝子の時空間的パターン 理研AS細胞システムコロキウムシリーズI 理化学研究所・和光 9/3
2. Kimura, A. 細胞のインテリアデザインを担う原動力の理解をめざして 第81回発生工学・疾患モデル研究会例会 順天堂大学 8/10
3. Kimura, A. Quantitative measurement and modeling of cell size dependent spindle elongation in the *C. elegans* embryo. EMBL Seminar EMBL, Heidelberg 6/16
4. Kimura, A. コンピュータ・シミュレーションを活用した細胞分裂装置の力学モデルの構築 東北大学先進融合領域フロンティアプログラム第8回異分野交流セミナー 東北大学 2/24
5. Kimura, A. 線虫初期胚における定量観察とモデリングを活用した細胞建築の解析 大阪大学セミナー 大阪大学 2/1
6. Kimura, A. 細胞の大きさや中心を知る機構:線虫*C. elegans*を用いた細胞建築学 九州大学セミナー 九州大学大学院・理学研究院 10/8
7. Koyama, H. 細胞形状の時間的変化と、それを誘導する細胞表層の力学の時空間的動態の予測 第4回非線形時系列に対する現象数理学の発展シンポジウム「複雑系現象の時系列解析4」 明治大学 1/28

POSTER PRESENTATIONS

1. Hara, Y. 「線虫*C. elegans*初期胚の定量的解析-シミュレーションからわかること・わからないこと-」, 第4回生殖研究ワークショップ, 下田, 8/18
2. Koyama, H. 「Quantification of cell shapes and estimation of cell-surface stiffness using

- a novel liposome-based cytokinesis model in *C. elegans* embryos.], 4th East Asia *C. elegans* Meeting , Tokyo, Japan , 7/13
- 3 . Kimura, K. 「 Organelle movement by dynein generates microtubule pulling force for centrosome centration in *C. elegans* early embryo.], 4th East Asia *C. elegans* Meeting , Tokyo, Japan , 7/13
 - 4 . Hara, Y. 「 Analyses on cell size-dependency of spindle shape in *C. elegans* embryos.], 4th East Asia *C. elegans* Meeting , Tokyo, Japan , 7/13
 - 5 . Kimura, A. 「 細胞分裂時の細胞形状データから細胞表層の力学パラメータを予測する 」, 第一回「バイオモデリングと統計科学」研究会, 東京, 6/30
 - 6 . Kimura, K. 「 線虫 *C. elegans* における中心体の中央配置機構 」, 第二回中心体研究会, 東京, 6/26
 - 7 . Kimura, A. 「 Quantitative modeling of mitotic spindle in *C. elegans* embryos.], 43rd Annual Meeting for the Japanese Society of Developmental Biologists , Kyoto, Japan , 6/22
 - 8 . Hara, Y. 「 Setting the width of metaphase spindle during *C. elegans* embryogenesis.], *C. elegans* Development and Gene Expression , Heidelberg, Germany , 6/19
 - 9 . Hayashi, H. 「 Changes of nuclear envelope shape during semi-open mitosis in *Caenorhabditis elegans* embryos.], *C. elegans* Development and Gene Expression , Heidelberg, Germany , 6/19
 - 10 . Kimura, K. 「 Dynein-dependent movement of intracellular organelles drives centrosome centration in *C. elegans* early embryo.], *C. elegans* Development and Gene Expression , Heidelberg, Germany , 6/18
 - 11 . Kimura, A. 「 Quantitative observation and modeling of organelle positioning in one-cell stage *C. elegans* embryos.], *C. elegans* Development and Gene Expression , Heidelberg, Germany , 6/18
 - 12 . Koyama, H. 「 細胞形状の変化を誘導する細胞表層の力学の時空間的動態の予測 」, 第59回理論応用力学講演会(NCTAM2010), 東京, 6/10
 - 13 . Hara, Y. 「 分裂期染色体のサイズ制御機構の解析 」, 第9回核ダイナミクス研究会, 修善寺, 5/28
 - 14 . Arai, R. 「 核-細胞質間輸送を介した微小管ネットワーク制御機構 」, 第9回核ダイナミクス研究会, 修善寺, 5/28
 - 15 . Kimura, A. 「 Quantitative Measurement and Modeling reveal Cell Size dependent Mechanisms to Elongate Mitotic Spindles in the *C. elegans* embryo.], 2nd Joint Meeting of the French and Japanese Societies for Developmental Biology “From Cells to Organs” , Paris, France , 5/26
 - 16 . Koyama, H. 「 細胞形状の時間的変化と、それを誘導する細胞表層の力学の時空間的動態の予測 」, 第4回非線形時系列に対する現象数理学の発展シンポジウム「複雑系現象の時系列解析4」, 東京, 1/28
 - 17 . Kimura, A. 「 線虫 *C. elegans* における染色体分配の細胞サイズ依存的制御 」, 第27回染色体ワークショップ, 御殿場, 1/24
 - 18 . Kosodo, Y., Kimura, A. 「 間期染色体テリトリー構造のモデル構築の試み: 胎生期脳での細胞核エレベーター運動の解析～組織発生における定量・モデリングの活用～ 」, 定量生物学の会第2回年会, 吹田市, 1/10
 - 19 . Koyama, H. 「 細胞質分裂時の細胞形状の定量的評価と、細胞表層の力学的性質の時空間的変化の予測 」, 定量生物学の会第2回年会, 吹田市, 1/10
 - 20 . Hara, Y. 「 細胞核のサイズによる染色体サイズの制御 」, 定量生物学の会第2回年会, 吹田市, 1/10
 - 21 . Kimura, K. 「 線虫初期胚における中心体中央配置機構としての中心体-オルガネラ間の綱引き移動モデル 」, 定量生物学の会第2回年会, 吹田市, 1/10
 - 22 . Koyama, H. 「 細胞質分裂の力学モデルの構築と、線虫細胞における細胞表層の力学の時空間的変化の予測 」, 第83回日本生化学会大会第33回日本分子生物学会年会合同大会 (BMB2010), 神戸, 12/8
 - 23 . Kimura, A. 「 線虫 *C. elegans* 初期胚における染色体動態の測定とモデルの構築 」, 第83回日本生化学会大会第33回日本分子生物学会年会合同大会 (BMB2010), 神戸, 12/8
 - 24 . Koyama, H. 「 Quantification of cell shapes and construction of a novel mechanical model to estimate cell-surface stiffness during cytokinesis in *C. elegans* embryonic cells.], ASCB Annual Meeting 2010 , Philadelphia, U.S.A. , 12/11

25. Kimura, A. 「線虫初期胚におけるcytoplasmic streamingとsemi-open mitosisの解析」, 定量生物学の会第3回年会, 東京, 11/27
26. Sugawara, T. 「核内染色体シミュレーション:核サイズとクロマチンループ形成が染色体構造に及ぼす影響について」, 定量生物学の会第3回年会, 東京, 11/27
27. Koyama, H. 「細胞質分裂の力学的機構:細胞表層の硬さの制御とその役割」, 定量生物学の会第3回年会, 東京, 11/27
28. Hara, Y. 「分裂中期紡錘体のサイズ制御」, 定量生物学の会第3回年会, 東京, 11/27
29. Kimura, A. 「線虫*C. elegans*初期胚における紡錘体伸長と細胞質分裂のモデル構築」, 日本動物学会第81回大会, 東京, 9/24
30. Koyama, H. 「数理モデルを用いた細胞質分裂における細胞表層の力学の時空間的変化の予測」, 日本機械学会第23回計算力学講演会, 北見市, 9/23
31. Kimura, A. 「Force balance models of centrosome centering and apindle elongation in *C. elegans* embryos」, Boehringer Ingelheim Fonds International Titisee Conferences – Mechanics of Cells and Tissues: Sensing, Generation and Coordinating Forces n Biological Systems, Titisee, Germany, 3/19

EDUCATION

1. Kimura, A., Fujimori, T. Quantitative biology of spatiotemporal dynamics in development 43rd Annual Meeting for the Japanese Society of Developmental Biologists Kyoto, Japan 6/22
2. 木村暁、黒澤元、小林徹也、佐藤雅之、杉村薫、塚田祐基、広井賀子、舟橋啓 定量生物学の会第三回年会 東京 11/26-28
3. 木村暁、若本祐一 理論と実験の統合的アプローチによる遺伝情報制御システムの理解 第83回日本生化学会大会第33回日本分子生物学会年会合同大会(BMB2010)ワークショップ 神戸 12/8

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

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J-d. Motor Neural Circuit Laboratory
Hiromi Hirata

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

- 1 . Low, S. E., Ryan, J., Sprague, S. M., Hirata, H., Cui, W. W., Zhou, W., Hume, R. I., Kuwada, J. Y. and Saint-Amant, L. (2010) touché is required for touch-evoked generator potentials within vertebrate sensory neurons. , **J. Neurosci.** , 30 , 9359 - 9367
- 2 . Nakano, Y., Fujita, M., Ogino, K., Kinoshita, T., Oda, Y. and Hirata, H. (2010) Biogenesis of GPI-anchored proteins is essential for surface expression of sodium channels in zebrafish Rohon-Beard neurons to respond to mechanosensory stimulation. , **Development** , 137 , 1689 - 1698
- 3 . Low, S. E., Zhou, W., Choong, X., Saint-Amant, L., Sprague, S. M., Hirata, H., Cui, W. W., Hume, R. I. and Kuwada, J. Y. (2010) Nav1.6a is required for normal activation of motor circuits normally excited by tactile stimulation. , **Dev. Neurobiol.** , 70 , 508 - 522
- 4 . Hirata, H., Carta, E., Yamanaka, I., Harvey, R. J. and Kuwada, J. Y. (2010) Defective glycinergic transmission in zebrafish motility mutants. , **Front. Mol. Neurosci.** , 2 , 1 - 17

ORAL PRESENTATION

- 1 . Hirata, H. Genetic analysis of glycinergic synapse in zebrafish. Molecular, Cellular and Developmental Biology Seminar University of Michigan, Ann Arbor, USA 11/11
- 2 . Hirata, H. Genetic and physiological analysis of motor development in zebrafish. Département de Pathologie et Biologie Cellulaire Séminaire Spécial University of Montreal, Montreal, Canada 6/21
- 3 . 平田普三 Genetic and pharmacological analysis of glycinergic synapses in zebrafish. 理研BSIセミナー 理化学研究所脳科学研究センター(和光) 4/5

POSTER PRESENTATIONS

- 1 . Ramsden, S., Ogino, K., Harvey, R. and Hirata, H. 「 Duplicated gephyrin genes mediate glycine receptor clustering and escape behaviour in zebrafish. 」, The 40th Annual Meeting of Neuroscience , San Diego, USA , 11/14
- 2 . Ramsden, S., Ogino, K., Harvey, R. and Hirata, H. 「 Duplicated gephyrin genes mediate glycine receptor clustering and escape behaviour in zebrafish. 」, The 9th International Conference on Zebrafish Development and Genetics , Madison, USA , 6/19
- 3 . 平田普三 「 Genetic and physiological analysis of motor development in zebrafish. 」, 遺伝研シンポジウム "Frontiers in Genetics 2010" , 三島 , 4/9
- 4 . 平田普三、中野由梨、藤田盛久、荻野一豊、ルイ・セントアマン、木下タロウ、小田洋一 「 1次感覚ニューロンにおける電位依存性ナトリウムチャネルの発現にGPIアンカータンパクの生

合成が必要である」, Neuro2010(第33回日本神経科学大会・第53回日本神経化学会大会・第20回日本神経回路学会大会合同大会), 神戸, 9/2

5. 荻野一豊、三木麻莉子、浅川和秀、小田洋一、川上浩一、平田普三「ゼブラフィッシュ胚でのグリシン作動性シナプスのライブイメージング」, BMB2010(第33回日本分子生物学会年会・第83回日本生化学会大会合同大会), 神戸, 12/7

6. 平田普三、山中衣織、三木麻莉子、荻野一豊、小田洋一「グリシン作動性シナプスの活動依存的形成と可視化」, 第16回小型魚類研究会, さいたま, 9/18

7. 荻野一豊、平田普三「ゼブラフィッシュのゲフィリン遺伝子のクローニングと機能解析」, 第16回小型魚類研究会, さいたま, 9/18

OTHERS

1. 平田普三, 2, 平成22年度日本神経科学学会奨励賞

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J-e. Molecular Function Laboratory

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J-e. Molecular Function Laboratory
Masato Kanemaki

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

1 . Renshaw MJ., Ward JJ., Kanemaki M., Natsume K., Nédélec FJ., and Tanaka TU. (2010) Condensins Promote Chromosome Recoiling during Early Anaphase to Complete Sister Chromatid Separation , **Developmental Cell** , 19 , 232 - 244

POSTER PRESENTATIONS

- 1 . Kanemaki, M. 「 An auxin based degron system to the new genetics of animal cells 」, International Symposium on Cell Function Mediated by Small Molecules , 筑波 , 11/8
- 2 . Watase, G., Takisawa, H. and Kanemaki, M. 「 Mcm10 is required for the establishment of functional replisomes 」, BMB2010 , 神戸 , 12/8

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J. CENTER FOR FRONTIER RESEARCH
J-f. Multicellular Society Laboratory
Kazuki Horikawa

RESEARCH ACTIVITIES

PUBLICATIONS

Papers

1 . Kazuki, Horikawa., Yoshiyuki, Yamada., Tomoki, Matsuda., Kentarou, Kobayashi., Mitsuhiro, Hashimoto., Toru, Matsu-ura., Atsushi Miyawaki., Takayuki, Michikawa., Katsuhiko, Mikoshiba., and Takeharu, Nagai (2010) Spontaneous network activity visualized by ultrasensitive Ca^{2+} indicators, yellow Cameleon-Nano , **NATURE METHODS** , 7 , 729 - 732

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RESEARCH ACTIVITIES

PUBLICATIONS

Papers

1. Ken-Ichi Nonomura, Hiroko Morishima, Toshie Miyabayashi, Shinichiro Yamaki, Mitsugu Eiguchi, Takahiko Kubo and Nori Kurata (2010) The wild *Oryza* collection in National BioResource Project(NBRP) of Japan: History, biodiversity and utility, **Breeding Science**, 60, 502 - 508
2. Yukiko Yamazaki, Shingo Sakaniwa, Rie Tsuchiya, Ken-Ichi Nonomura and Nori Kurata (2010) Oryzabase: an integrated information resource for rice science, **Breeding Science**, 60, 544 - 548
3. Shinichiro Yamaki, Toshie Miyabayashi, Mitsugu Eiguchi, Hidemi Kitano, Ken-Ichi Nonomura and Nori Kurata (2010) Diversity of panicle branching patterns in wild relatives of rice, **Breeding Science**, 60, 586 - 596

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1. 野々村賢一、永口 貢、宮崎さおり、米田典央、宮尾安藝雄、廣近洋彦、倉田のり 「植物の減数分裂前G1/S移行を制御する新規RRM蛋白質の解析」, 第33回 日本分子生物学会年会, 神戸, 12/7-10
2. 野々村賢一 「植物の減数分裂への移行を制御するRNA結合蛋白質の解析」, 日本植物学会第74回大会, 春日井市, 9/9-10
3. 上田健治、高橋幸子、吉村育晶、宮尾安藝雄、廣近洋彦、倉田のり、野々村賢一、我彦廣悦、井上正保 「イネ花粉突然変異体Tos0445の分子遺伝学的解析」, 日本植物学会第74回大会, 春日井市, 9/9-10
4. Miyazaki S 「ANXUR1 and 2 are male factors controlling fertilization timing in *Arabidopsis thaliana*」, Perspective of Plant Science 2010, Okazaki, Aichi, Japan, 3/27
5. 米田典央、野々村賢一 「イネ減数分裂におけるシナプトネマ複合体タンパク質ZYP1の機能」, 日本育種学会第117回春季大会, 京都市, 3/25-27

OTHERS

1. Kenichi Nonomura, 3, NSF project proposal reviewer
2. 野々村賢一, 3, 東京大学大学院農学生命科学研究科非常勤講師
3. 野々村賢一, 1, 日本育種学会、常任幹事会庶務幹事

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1. 水品洋一 「 C57BL/6J由来ES細胞樹立の試み 」, 第21回生物学技術研究会, 愛知県岡崎市, 2/19
2. 坂 季美子 「 パルスフィールド電気泳動法を用いた出芽酵母リボソームRNA遺伝子安定化機構に関わる因子の網羅的探索 」, 第21回生物学技術研究会, 愛知県岡崎市, 2/18-19
3. 坂 季美子, 井手 聖, ガンレイ オーステン, 小林 武彦 「 ノンコーディングな転写の抑制によって酵母の寿命は延長する 」, 日本遺伝学会 第82回大会, 北海道札幌市, 9/20 - 9/23

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Author	Division/Laboratory
6/30	H-a Biological Macromolecules
63 authors.	I-a Laboratory for DNA Data Analysis
85 authors.	I-a Laboratory for DNA Data Analysis
A. Fujiyama	A-a Division of Molecular Genetics
A. Miyagi	A-a Division of Molecular Genetics
A. Suzuki	A-a Division of Molecular Genetics
A. Toyoda	A-a Division of Molecular Genetics
AOKI, K.	F-f Microbial Genetics Laboratory
Aarnink, A.	D-a Division of Population Genetics
Abe, G.	C-c Division of Molecular and Developmental Biology
Aburatani, H.	I-a Laboratory for DNA Data Analysis
Adamczyk, P.	I-a Laboratory for DNA Data Analysis
Aerts, J.	I-b Laboratory for Gene-Product Informatics
Agetsuma, M.	C-c Division of Molecular and Developmental Biology
Ahn, JM.	I-a Laboratory for DNA Data Analysis
Aigaki, T.	F-g Invertebrate Genetics Laboratory
Aiko Sada	F-b Mammalian Development Laboratory
Aiko, Y.	F-a Mammalian Genetics Laboratory
Aiko,Sada.	F-b Mammalian Development Laboratory
Aisaki K	F-b Mammalian Development Laboratory
Aizawa, H.	C-c Division of Molecular and Developmental Biology
Aizawa,Y.	C-b Division of Neurogenetics
Aizu, T.	F-e Plant Genetics Laboratory
Akashi R	G-b Genome biology Laboratory
Akashi, R.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory G-a Genetic Informatics Laboratory
Akimoto, Y.	F-g Invertebrate Genetics Laboratory
Alves Fde	A-a Division of Molecular Genetics
Amano, T.	F-a Mammalian Genetics Laboratory
Ammiraju, J.S.S.	F-e Plant Genetics Laboratory
Amo, R.	C-c Division of Molecular and Developmental Biology
Angelova, A.	F-e Plant Genetics Laboratory
Aoba, Sachiko	F-b Mammalian Development Laboratory

Aoki K	G-b Genome biology Laboratory
Aoki, A.	F-a Mammalian Genetics Laboratory
Aoki, T.	C-c Division of Molecular and Developmental Biology
Aono, H.	I-a Laboratory for DNA Data Analysis
Apoil, P. A.	D-a Division of Population Genetics
Appelbaum, L.	C-c Division of Molecular and Developmental Biology
Ar,a	I-b Laboratory for Gene-Product Informatics
Arai, R.	J-c Cell Architecture Laboratory
Arakawa, K.	I-b Laboratory for Gene-Product Informatics
Araki S	B-b Division of Microbial Genetics
Araki, H.	B-b Division of Microbial Genetics
Araki,H.	B-b Division of Microbial Genetics
Araki,K.	C-b Division of Neurogenetics
Arie T	G-b Genome biology Laboratory
Asada, N.	G-c Comparative Genomics Laboratory
Asada, T.	C-c Division of Molecular and Developmental Biology
Asai, K.	I-b Laboratory for Gene-Product Informatics
Asakawa, K.	C-c Division of Molecular and Developmental Biology
Asami, Y.	C-c Division of Molecular and Developmental Biology
Asamizu, E.	I-b Laboratory for Gene-Product Informatics
Asao Fujiyama	A-a Division of Molecular Genetics
Asao Fujiyama1	I-b Laboratory for Gene-Product Informatics
Asaoka, M.	C-a Division of Developmental Genetics
Aso Fujiyama	A-a Division of Molecular Genetics
Atsushi Miyawaki.	J-f Multicellular Society Laboratory
Atsushi Suzuki	F-b Mammalian Development Laboratory
Atsushi Suzuki.	F-b Mammalian Development Laboratory
Atsushi Toyoda	A-a Division of Molecular Genetics
Atsushi Toyoda1	I-b Laboratory for Gene-Product Informatics
Atsushi Yoshiki	G-a Genetic Informatics Laboratory
Atsushi,Suzuki.	F-b Mammalian Development Laboratory
Attie, O.	G-b Genome biology Laboratory
Attwood, TK.	I-a Laboratory for DNA Data Analysis
Aujard, I.	C-c Division of Molecular and Developmental Biology
Awano, W.	F-g Invertebrate Genetics Laboratory
Backer, C.B.	A-a Division of Molecular Genetics
Bader D	F-b Mammalian Development Laboratory
Bai, Y.	A-a Division of Molecular Genetics
Baillie DL	G-b Genome biology Laboratory
Bairoch, A.	I-a Laboratory for DNA Data Analysis
Bally-Cuif, L.	C-c Division of Molecular and Developmental Biology
Banno Y	G-b Genome biology Laboratory
Banno, Y.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory
Barboza, L.H.	I-b Laboratory for Gene-Product Informatics
Barrero, R.	I-a Laboratory for DNA Data Analysis

Bateman, A.	I-a Laboratory for DNA Data Analysis
Bazett-Jones D.P.	H-a Biological Macromolecules
Bellgard, M.	I-a Laboratory for DNA Data Analysis
Bensimon, D.	C-c Division of Molecular and Developmental Biology
Blake, JA.	I-a Laboratory for DNA Data Analysis
Bonnal, R.J.	I-b Laboratory for Gene-Product Informatics
Bos, F.L.	C-c Division of Molecular and Developmental Biology
Bouffard, P.	G-b Genome biology Laboratory
Boyson, C.	F-c Mouse Genomics Resource Laboratory
Boyson, C.O.	F-c Mouse Genomics Resource Laboratory
Brar, D.	F-e Plant Genetics Laboratory
Bruskiewich, R.	I-b Laboratory for Gene-Product Informatics
Bryne, J.C.	I-b Laboratory for Gene-Product Informatics
Bult, C.J.	I-a Laboratory for DNA Data Analysis
Bussmann, J.	C-c Division of Molecular and Developmental Biology
C.J.	C-c Division of Molecular and Developmental Biology
Canfield, V.	C-c Division of Molecular and Developmental Biology
Cao, X.	I-b Laboratory for Gene-Product Informatics E-b Division of Agricultural Genetics
Carr AM.	F-f Microbial Genetics Laboratory
Carta, E.	J-d Motor Neural Circuit Laboratory
Carvalho AA	I-a Laboratory for DNA Data Analysis
Chan, A.T.	A-a Division of Molecular Genetics
Chang Pack	H-a Biological Macromolecules
Chang, C.C.	C-c Division of Molecular and Developmental Biology
Chapman, JA.	I-a Laboratory for DNA Data Analysis
Charras, G.	C-c Division of Molecular and Developmental Biology
Chattopadhyay P. K.	D-a Division of Population Genetics
Cheeseman, I.M.	A-a Division of Molecular Genetics
Chen, G.D.	C-c Division of Molecular and Developmental Biology
Chen, K.	G-b Genome biology Laboratory
Chen, Y.C.	C-c Division of Molecular and Developmental Biology
Chen, Z.A.	A-a Division of Molecular Genetics
Cheng HT	F-b Mammalian Development Laboratory
Cheng, C.H.	C-c Division of Molecular and Developmental Biology
Cheng, K.C.	C-c Division of Molecular and Developmental Biology
Cheng, S.H.	A-a Division of Molecular Genetics
Cheng, Y.	A-a Division of Molecular Genetics
Cherry, JM.	I-a Laboratory for DNA Data Analysis
Chisholm, RL.	I-a Laboratory for DNA Data Analysis
Chitnis, A.B.	C-c Division of Molecular and Developmental Biology
Choong, X.	J-d Motor Neural Circuit Laboratory
Chu, C.Y.	C-c Division of Molecular and Developmental Biology
Chuma, S.	G-c Comparative Genomics Laboratory
Chun, H.W.	I-b Laboratory for Gene-Product Informatics
Cochrane, G.	I-a Laboratory for DNA Data Analysis

Coffin JM	I-a Laboratory for DNA Data Analysis
Cook, CE.	I-a Laboratory for DNA Data Analysis
Crump, J.G.	C-c Division of Molecular and Developmental Biology
Cui, W. W.	J-d Motor Neural Circuit Laboratory
Cui, X.	I-b Laboratory for Gene-Product Informatics E-b Division of Agricultural Genetics
Cunha EM	I-a Laboratory for DNA Data Analysis
D.M.	I-b Laboratory for Gene-Product Informatics
Daito T	I-a Laboratory for DNA Data Analysis
Dalton S.	H-a Biological Macromolecules
de Almeida	F-c Mouse Genomics Resource Laboratory
DeBold, J.F.	F-c Mouse Genomics Resource Laboratory
deBold, J.F.	F-c Mouse Genomics Resource Laboratory
Dong, Y.	A-a Division of Molecular Genetics
Dowse, H.	F-c Mouse Genomics Resource Laboratory
Duckers, H.J.	C-c Division of Molecular and Developmental Biology
Dunn, DS.	I-a Laboratory for DNA Data Analysis
Dupre-Crochet, S.	C-c Division of Molecular and Developmental Biology
E Kaminuma	I-b Laboratory for Gene-Product Informatics
Earnshaw, W.C.	A-a Division of Molecular Genetics
Ebana K.	I-b Laboratory for Gene-Product Informatics
Ebana, K.	I-b Laboratory for Gene-Product Informatics
Edo, J.	D-a Division of Population Genetics
Egusa M	G-b Genome biology Laboratory
Eiguchi, M.	F-e Plant Genetics Laboratory
Eiji Nitasaka	G-a Genetic Informatics Laboratory
Eli Kaminuma	I-b Laboratory for Gene-Product Informatics
Eli Kaminuma1	I-b Laboratory for Gene-Product Informatics
Emiko Suzuki	H-e Gene Network Laboratory
Emoto, N.	C-c Division of Molecular and Developmental Biology
Endo T	G-b Genome biology Laboratory
Endo TA	I-b Laboratory for Gene-Product Informatics
Endo, T.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory G-a Genetic Informatics Laboratory
Endo,S.	B-b Division of Microbial Genetics
Eppig, JT.	I-a Laboratory for DNA Data Analysis
Estrade, L.	D-a Division of Population Genetics
Ezawa, K.	D-a Division of Population Genetics I-a Laboratory for DNA Data Analysis
Ezura H	G-b Genome biology Laboratory
Ezura, H.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory G-a Genetic Informatics Laboratory
FURUYA, Kanji.	F-f Microbial Genetics Laboratory
Fernandez, J.M.	I-b Laboratory for Gene-Product Informatics
Field, D.	I-a Laboratory for DNA Data Analysis

Fischer, L.	A-a Division of Molecular Genetics
Flors, C.	A-a Division of Molecular Genetics
Fujii, M.	H-a Biological Macromolecules
Fujii, S.	F-e Plant Genetics Laboratory
Fujii, T.	F-e Plant Genetics Laboratory
Fujimori-Tonou, N.	C-c Division of Molecular and Developmental Biology
Fujisawa T	Hb Laboratory for Gene-Product Informatics C-a Division of Developmental Genetics
Fujisawa, H.	Hb Laboratory for Gene-Product Informatics F-e Plant Genetics Laboratory
Fujisawa, T.	Ia Laboratory for DNA Data Analysis
Fujishiro T	Hb Laboratory for Gene-Product Informatics
Fujishiro, T.	Hb Laboratory for Gene-Product Informatics
Fujita M	Hb Laboratory for Gene-Product Informatics
Fujita, M.	J-d Motor Neural Circuit Laboratory F-e Plant Genetics Laboratory
Fujita, Y.	C-c Division of Molecular and Developmental Biology
Fujiyama, A.	A-a Division of Molecular Genetics G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Fukagawa T.	A-a Division of Molecular Genetics
Fukagawa, T.	A-a Division of Molecular Genetics
Fukami-Kobayashi K	G-b Genome biology Laboratory
Fukuda, R.	C-c Division of Molecular and Developmental Biology
Fukumori Y.	D-a Division of Population Genetics
Fukuoka S.	Hb Laboratory for Gene-Product Informatics
Fukuoka, H.	Hb Laboratory for Gene-Product Informatics
Fukushima S	G-b Genome biology Laboratory
Fumie Kasai	G-a Genetic Informatics Laboratory
Funahashi, A.	Hb Laboratory for Gene-Product Informatics
Funakoshi T.	H-a Biological Macromolecules
Furue, M.	Ia Laboratory for DNA Data Analysis
Furuse, T.	F-c Mouse Genomics Resource Laboratory
Furuya, K.	F-f Microbial Genetics Laboratory
Fussner E.	H-a Biological Macromolecules
Gagey, N.	C-c Division of Molecular and Developmental Biology
Galperin, MY.	Ia Laboratory for DNA Data Analysis
Gaudet, P.	Ia Laboratory for DNA Data Analysis
Gauron, C.	C-c Division of Molecular and Developmental Biology
Gemini, S.	C-c Division of Molecular and Developmental Biology
Geng, H.	A-a Division of Molecular Genetics
Gengyo-Ando K	G-b Genome biology Laboratory
Gentleman, R.	Ia Laboratory for DNA Data Analysis
Ghysen, A.	C-c Division of Molecular and Developmental Biology
Gilbert D.M.	H-a Biological Macromolecules
Goble, CA.	Ia Laboratory for DNA Data Analysis
Goicoechea, J.L.	F-e Plant Genetics Laboratory

Gojobori T	Ib Laboratory for Gene-Product Informatics Ia Laboratory for DNA Data Analysis
Gojobori T.	Ia Laboratory for DNA Data Analysis
Gojobori, T	Ia Laboratory for DNA Data Analysis
Gojobori, T.	D-a Division of Population Genetics E-c Division of Brain Function Ia Laboratory for DNA Data Analysis
Gojobori,T.	D-a Division of Population Genetics
Gojobori, T.	Ia Laboratory for DNA Data Analysis
Gong, H.Y.	C-c Division of Molecular and Developmental Biology
Gordon, P.M.	Ib Laboratory for Gene-Product Informatics
Goshima Y.	G-b Genome biology Laboratory
Goshima, G.	J-c Cell Architecture Laboratory
Gothlif, Y.	C-c Division of Molecular and Developmental Biology
Goto, M.	C-c Division of Molecular and Developmental Biology
Goto, N.	Ib Laboratory for Gene-Product Informatics
Goto,H.	C-b Division of Neurogenetics
Gotoh, K.	G-c Comparative Genomics Laboratory
Groscurth, A.	Ib Laboratory for Gene-Product Informatics
Gu, MB.	Ia Laboratory for DNA Data Analysis
Gunsalus, KC.	G-b Genome biology Laboratory
Gutteridge, A.	Ib Laboratory for Gene-Product Informatics
Gutwein, MR.	G-b Genome biology Laboratory
Habara, T.	Ia Laboratory for DNA Data Analysis
Hachiya, T.	G-c Comparative Genomics Laboratory
Hajime Ohyanagi ¹	Ib Laboratory for Gene-Product Informatics
Hamada , H.	F-e Plant Genetics Laboratory
Hamada K	Ib Laboratory for Gene-Product Informatics
Hamada, K.	F-e Plant Genetics Laboratory
Hamaguchi, S.	C-c Division of Molecular and Developmental Biology
Han, H.W.	C-c Division of Molecular and Developmental Biology
Han, T.	G-b Genome biology Laboratory
Hancock, JM.	Ia Laboratory for DNA Data Analysis
Hara, Y.	J-c Cell Architecture Laboratory
Harihara S.	D-a Division of Population Genetics
Harkins, TT.	G-b Genome biology Laboratory
Harris, A.R.	C-c Division of Molecular and Developmental Biology
Harushima, Y.	Ib Laboratory for Gene-Product Informatics F-e Plant Genetics Laboratory
Harvey, R.	J-d Motor Neural Circuit Laboratory
Harvey, R. J.	J-d Motor Neural Circuit Laboratory
Harvey, R.J.	C-c Division of Molecular and Developmental Biology
Hasegawa, A.	Ia Laboratory for DNA Data Analysis
Hasegawa, M.	D-a Division of Population Genetics
Hashikawa T.	H-a Biological Macromolecules
Hashikawa, T.	H-a Biological Macromolecules

Hata K	B-b Division of Microbial Genetics
Hattori, M.	G-c Comparative Genomics Laboratory
Hayakawa, S.	Ia Laboratory for DNA Data Analysis
Hayakawa, Y.	Ia Laboratory for DNA Data Analysis
Hayashi, T.	G-c Comparative Genomics Laboratory
Hayashi,H.	J-c Cell Architecture Laboratory
Hayashizaki, Y.	Ia Laboratory for DNA Data Analysis
Henke L.	D-a Division of Population Genetics
Hideaki Sugawara	Ib Laboratory for Gene-Product Informatics G-a Genetic Informatics Laboratory
Hideaki Sugawara1	Ib Laboratory for Gene-Product Informatics
Hideki Nagasaki	Ib Laboratory for Gene-Product Informatics
Hideki Nagasaki1	Ib Laboratory for Gene-Product Informatics
Hideko Urushibara	G-a Genetic Informatics Laboratory
Hidemi Kitano	L EXPERIMENTAL FARM
Higashijima, S.	C-c Division of Molecular and Developmental Biology
Higashijima, S.I.	C-c Division of Molecular and Developmental Biology
Hihara, S.	H-a Biological Macromolecules
Hinohara, Y.	F-g Invertebrate Genetics Laboratory
Hinohara,Y.	H-e Gene Network Laboratory
Hirai, K.	B-b Division of Microbial Genetics
Hirai,K.	B-b Division of Microbial Genetics
Hirakawa, H.	Ib Laboratory for Gene-Product Informatics
Hirano,A.	C-b Division of Neurogenetics
Hirasawa, T.	F-c Mouse Genomics Resource Laboratory
Hirata, H.	J-d Motor Neural Circuit Laboratory
Hirata, T	E-c Division of Brain Function
Hiratani I.	H-a Biological Macromolecules
Hiroki,Kokubo.	F-b Mammalian Development Laboratory
Hiroko Morishima	L EXPERIMENTAL FARM
Hiromi, H.	C-a Division of Developmental Genetics
Hiromi, Y	C-a Division of Developmental Genetics
Hiromi, Y.	C-a Division of Developmental Genetics
Hironori Niki	G-a Genetic Informatics Laboratory
Hirose, M.	Ia Laboratory for DNA Data Analysis
Hiroshi Ezura	G-a Genetic Informatics Laboratory
Hitoshi Okamoto	G-a Genetic Informatics Laboratory
Hizume K	B-b Division of Microbial Genetics
Hoffmann, A. A.	D-a Division of Population Genetics
Hoffmann, A.A.	D-a Division of Population Genetics
Hogan, C.	C-c Division of Molecular and Developmental Biology
Holl,	Ib Laboratory for Gene-Product Informatics
Holstein, TW.	Ia Laboratory for DNA Data Analysis
Honda T	Ia Laboratory for DNA Data Analysis
Hongo, K.	F-e Plant Genetics Laboratory
Hori, T.	A-a Division of Molecular Genetics

	G-c Comparative Genomics Laboratory
Hori,T.	A-a Division of Molecular Genetics
Horie M	Ia Laboratory for DNA Data Analysis
Horie, K.	C-c Division of Molecular and Developmental Biology
Horie-Inoue, K.	Ia Laboratory for DNA Data Analysis
Horii, A.	G-a Genetic Informatics Laboratory
Horiuchi Y	Ib Laboratory for Gene-Product Informatics
Horiuchi, Y.	Ib Laboratory for Gene-Product Informatics F-e Plant Genetics Laboratory
Hosoya, T.	C-c Division of Molecular and Developmental Biology
Howe, DG.	Ia Laboratory for DNA Data Analysis
Hozumi, K.	C-c Division of Molecular and Developmental Biology
Hu, S.Y.	C-c Division of Molecular and Developmental Biology
Hudson, D.F.	A-a Division of Molecular Genetics
Hume, R. I.	J-d Motor Neural Circuit Laboratory
Hwang, JS.	Ia Laboratory for DNA Data Analysis
Hwang, P.P.	C-c Division of Molecular and Developmental Biology
I.M.	A-a Division of Molecular Genetics
Ichimiya, T.	F-g Invertebrate Genetics Laboratory
Ichinose Y	G-b Genome biology Laboratory
Ida, K.	C-c Division of Molecular and Developmental Biology
Ide, S.	B-a Division of Cytogenetics
Iemura, S.I.	C-c Division of Molecular and Developmental Biology
Igarashi K	F-b Mammalian Development Laboratory
Iino, H.	H-a Biological Macromolecules
Ikeda, K.	Ia Laboratory for DNA Data Analysis
Ikeo, K.	Ib Laboratory for Gene-Product Informatics D-a Division of Population Genetics Ia Laboratory for DNA Data Analysis
Ikeo,K.	D-a Division of Population Genetics Ia Laboratory for DNA Data Analysis
Ikuta K	Ia Laboratory for DNA Data Analysis
Imai, F.	C-c Division of Molecular and Developmental Biology
Imamoto F.	H-a Biological Macromolecules
Imanishi, T.	Ia Laboratory for DNA Data Analysis
Inaba K	G-b Genome biology Laboratory
Inaba, K.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory
Inaba, M.	C-c Division of Molecular and Developmental Biology
Inagaki, N.	E-c Division of Brain Function
Inagaki, S.	Ib Laboratory for Gene-Product Informatics E-b Division of Agricultural Genetics
Inoko, H.	F-d Model Fish Genomics Resource
Inomata, N.	D-a Division of Population Genetics
Inoue, H.	G-c Comparative Genomics Laboratory
Inoue, M.	F-c Mouse Genomics Resource Laboratory
Inoue, S.	Ia Laboratory for DNA Data Analysis

Isa T	G-b Genome biology Laboratory
Isa, T.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory
Isaka, K.	C-c Division of Molecular and Developmental Biology
Isawa, T.	Ib Laboratory for Gene-Product Informatics
Iseki.	F-b Mammalian Development Laboratory
Ishibashi, T.	Ia Laboratory for DNA Data Analysis
Ishida J	Ib Laboratory for Gene-Product Informatics
Ishii, A.	F-a Mammalian Genetics Laboratory F-c Mouse Genomics Resource Laboratory
Ishikawa, K.	Ia Laboratory for DNA Data Analysis
Ishikawa, R.	F-e Plant Genetics Laboratory
Ishikawa, T.	H-a Biological Macromolecules
Ishimizu T	Ib Laboratory for Gene-Product Informatics
Ishimizu, T.	F-e Plant Genetics Laboratory
Ishitani, T.	C-c Division of Molecular and Developmental Biology
Ishizaka, Y.	H-a Biological Macromolecules
Isobe, S.	Ib Laboratory for Gene-Product Informatics
Isoda, M.	C-c Division of Molecular and Developmental Biology
Itabashi, E.	F-e Plant Genetics Laboratory
Itasaki, N.	C-c Division of Molecular and Developmental Biology
Itaya, M.	G-c Comparative Genomics Laboratory
Itho, M.	D-a Division of Population Genetics
Ito FH	Ia Laboratory for DNA Data Analysis
Ito, A.	C-c Division of Molecular and Developmental Biology
Ito, F.	Ia Laboratory for DNA Data Analysis
Ito, Y.	F-e Plant Genetics Laboratory
Itoh M.	H-a Biological Macromolecules
Itoh, K.	G-c Comparative Genomics Laboratory
Itoh, M.	C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics
Itoh, Hiroki	F-b Mammalian Development Laboratory
Itohara, S.	C-b Division of Neurogenetics
Itohara, Y.	C-b Division of Neurogenetics
Ito T	Ia Laboratory for DNA Data Analysis
Ito, H.	H-d Biomolecular Structure Laboratory
Ito, T.	Ia Laboratory for DNA Data Analysis
Iwai H	Ib Laboratory for Gene-Product Informatics
Iwai, H.	F-e Plant Genetics Laboratory
Iwasato, T.	C-b Division of Neurogenetics
Iwata, H.	Ib Laboratory for Gene-Product Informatics
Iwata, J.	F-a Mammalian Genetics Laboratory
Iwata, R.	C-b Division of Neurogenetics
Iyoda, S.	G-c Comparative Genomics Laboratory
J.L.	C-c Division of Molecular and Developmental Biology
Jackson, S.	F-e Plant Genetics Laboratory
James, V.	C-c Division of Molecular and Developmental Biology

Jern P	I-a Laboratory for DNA Data Analysis
Jin F.	D-a Division of Population Genetics
Jinam, T. A.	D-a Division of Population Genetics
Joglekar, A.	A-a Division of Molecular Genetics
Johnson, S.	C-c Division of Molecular and Developmental Biology
Johnston, K.	A-a Division of Molecular Genetics
Jullien, L.	C-c Division of Molecular and Developmental Biology
Just, D.	I-b Laboratory for Gene-Product Informatics
K. Morikawa	A-a Division of Molecular Genetics
K. Takeuchi	A-a Division of Molecular Genetics
Kagesawa, T.	D-a Division of Population Genetics
Kajita, M.	C-c Division of Molecular and Developmental Biology
Kajiwara, M.	D-a Division of Population Genetics
Kakita,A.	C-b Division of Neurogenetics
Kakusho, N.	F-f Microbial Genetics Laboratory
Kakutani, T.	E-b Division of Agricultural Genetics
Kamei K	G-b Genome biology Laboratory
Kamei, K.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory
Kamimura, Y.	B-b Division of Microbial Genetics
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
Kaminuma,E.	I-a Laboratory for DNA Data Analysis
Kampuansai, J.	I-a Laboratory for DNA Data Analysis
Kanamori, H.	I-b Laboratory for Gene-Product Informatics
Kanamori,T.	H-e Gene Network Laboratory
Kaneda, H.	F-c Mouse Genomics Resource Laboratory
Kaneko T	I-b Laboratory for Gene-Product Informatics
Kaneko, H.	C-c Division of Molecular and Developmental Biology
Kaneko, T.	I-b Laboratory for Gene-Product Informatics
Kanemaki, M.	J-e Molecular Function Laboratory
Kangwanpong, D.	I-a Laboratory for DNA Data Analysis
Kanie, O.	F-g Invertebrate Genetics Laboratory
Kanie, Y.	F-g Invertebrate Genetics Laboratory
Kanno J	F-b Mammalian Development Laboratory
Kanno, J.	J-c Cell Architecture Laboratory
Kanno.	F-b Mammalian Development Laboratory
Kano, Y.	I-b Laboratory for Gene-Product Informatics
Kanri,.Takaaki	F-b Mammalian Development Laboratory
Karasuyama, H.	F-a Mammalian Genetics Laboratory
Kasai F	G-b Genome biology Laboratory
Kasai, F.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory G-a Genetic Informatics Laboratory
Katayama, S.	I-a Laboratory for DNA Data Analysis

Katayama, T.	I-b Laboratory for Gene-Product Informatics
Kato H	I-b Laboratory for Gene-Product Informatics
Kato, H.	F-e Plant Genetics Laboratory
Kato, J.	A-a Division of Molecular Genetics G-c Comparative Genomics Laboratory
Kato, Y.	F-a Mammalian Genetics Laboratory
Katoh, M.	I-b Laboratory for Gene-Product Informatics
Katori, T.	G-c Comparative Genomics Laboratory
Katsuhiko Kamei	G-a Genetic Informatics Laboratory
Kawaguchi S	I-b Laboratory for Gene-Product Informatics
Kawahara, A.	C-c Division of Molecular and Developmental Biology
Kawaharada, Y.	I-b Laboratory for Gene-Product Informatics
Kawai Y.	D-a Division of Population Genetics
Kawai, Y.	G-a Genetic Informatics Laboratory
Kawaida H	C-a Division of Developmental Genetics
Kawakami, H.	F-g Invertebrate Genetics Laboratory
Kawakami, K.	C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics
Kawakita, M.	I-b Laboratory for Gene-Product Informatics F-e Plant Genetics Laboratory
Kawamura K.	D-a Division of Population Genetics
Kawamura S	G-b Genome biology Laboratory
Kawas, E.A.	I-b Laboratory for Gene-Product Informatics
Kawasaki, T.	E-c Division of Brain Function F-d Model Fish Genomics Resource
Kawasaki, Y.	G-c Comparative Genomics Laboratory
Kawashima M	I-b Laboratory for Gene-Product Informatics
Kawashima, K.	I-b Laboratory for Gene-Product Informatics
Kawashima, S.	I-b Laboratory for Gene-Product Informatics
Kawaura K	G-b Genome biology Laboratory
Kawazu, C.	I-a Laboratory for DNA Data Analysis
Kazuhiro Maeshima	H-a Biological Macromolecules
Kazuhiro Sato	G-a Genetic Informatics Laboratory
Kazuho Ikeo	I-a Laboratory for DNA Data Analysis
Kazuki Ito	H-a Biological Macromolecules
Kazuki, Horikawa.	J-f Multicellular Society Laboratory
Kazuo Inaba	G-a Genetic Informatics Laboratory
Kazuteru Hasegawa	F-b Mammalian Development Laboratory
Kazuteru, Hasegawa	F-b Mammalian Development Laboratory
Keller B	G-b Genome biology Laboratory
Kelso, J.	I-a Laboratory for DNA Data Analysis
Kema, IP.	I-a Laboratory for DNA Data Analysis
Ken-Ichi Nonomura	L EXPERIMENTAL FARM
Kerhornou, A.	I-b Laboratory for Gene-Product Informatics
Khivansara, V.	G-b Genome biology Laboratory
Kibukawa, E.	I-b Laboratory for Gene-Product Informatics
Kikkawa, Y.	F-a Mammalian Genetics Laboratory

Kikuchi M	G-b Genome biology Laboratory
Kikuchi S	Ib Laboratory for Gene-Product Informatics
Kikuchi, S.	F-e Plant Genetics Laboratory
Kim JM	Ib Laboratory for Gene-Product Informatics
Kim, H.R.	F-e Plant Genetics Laboratory
Kimura A	F-b Mammalian Development Laboratory
Kimura, A.	J-c Cell Architecture Laboratory
Kimura, G.	G-a Genetic Informatics Laboratory
Kimura, H.	Ib Laboratory for Gene-Product Informatics E-b Division of Agricultural Genetics
Kimura, K.	J-c Cell Architecture Laboratory G-a Genetic Informatics Laboratory
Kimura, T.	G-c Comparative Genomics Laboratory F-d Model Fish Genomics Resource
Kinjo, A.R.	Ib Laboratory for Gene-Product Informatics
Kinoshita, H.	G-a Genetic Informatics Laboratory
Kinoshita, T.	J-d Motor Neural Circuit Laboratory
Kinoshita, Y.	F-e Plant Genetics Laboratory
Kishida, Y.	Ib Laboratory for Gene-Product Informatics
Kiso M	F-b Mammalian Development Laboratory
Kiso, M.	J-c Cell Architecture Laboratory
Kita, Y. F.	D-a Division of Population Genetics
Kitajima S	F-b Mammalian Development Laboratory
Kitajima, S.	J-c Cell Architecture Laboratory
Kitamura, H.	A-a Division of Molecular Genetics
Kitano, H.	F-e Plant Genetics Laboratory G-a Genetic Informatics Laboratory
Kitano, T.	D-a Division of Population Genetics
Kitazawa, H.	G-a Genetic Informatics Laboratory
Kiyomitsu, T.	A-a Division of Molecular Genetics
Kiyoshi Naruse	G-a Genetic Informatics Laboratory
Kobayakawa Y	C-a Division of Developmental Genetics
Kobayashi M	G-b Genome biology Laboratory
Kobayashi N	Ib Laboratory for Gene-Product Informatics
Kobayashi Y	Ia Laboratory for DNA Data Analysis
Kobayashi, D.	G-c Comparative Genomics Laboratory
Kobayashi, K.	F-c Mouse Genomics Resource Laboratory
Kobayashi, M.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory G-a Genetic Informatics Laboratory
Kobayashi, Y.	G-c Comparative Genomics Laboratory Ia Laboratory for DNA Data Analysis
Kodama M	G-b Genome biology Laboratory
Kodama Y	Ib Laboratory for Gene-Product Informatics
Kodama, Y.	Ib Laboratory for Gene-Product Informatics Ia Laboratory for DNA Data Analysis

Kodama, Y.	I-a Laboratory for DNA Data Analysis
Kohara M	I-b Laboratory for Gene-Product Informatics
Kohara Y	G-b Genome biology Laboratory
Kohara Y.	G-b Genome biology Laboratory
Kohara, M.	I-b Laboratory for Gene-Product Informatics
Kohara, Y.	G-b Genome biology Laboratory F-a Mammalian Genetics Laboratory
Kohno, R.	I-a Laboratory for DNA Data Analysis
Koide, T.	F-a Mammalian Genetics Laboratory F-c Mouse Genomics Resource Laboratory
Koinuma, S.	C-c Division of Molecular and Developmental Biology
Kojima-Kita, K.	G-c Comparative Genomics Laboratory
Kokubo, Atsushi	F-b Mammalian Development Laboratory
Komatsu, K.	G-c Comparative Genomics Laboratory
Komiyama, H.	F-a Mammalian Genetics Laboratory
Komiyama, T.	I-a Laboratory for DNA Data Analysis
Kondo, R.	D-a Division of Population Genetics
Kondo, S.	C-c Division of Molecular and Developmental Biology
Kondo, Taka	F-b Mammalian Development Laboratory
Kono, T.	I-a Laboratory for DNA Data Analysis
Kopan R.	F-b Mammalian Development Laboratory
Kopan, Raphael.	F-b Mammalian Development Laboratory
Kose, S.	H-a Biological Macromolecules
Koseki, H.	F-a Mammalian Genetics Laboratory
Koshida.	F-b Mammalian Development Laboratory
Kosodo, Y.	J-c Cell Architecture Laboratory
Kosuge, T.	I-a Laboratory for DNA Data Analysis
Kotani, T.	C-c Division of Molecular and Developmental Biology
Kousaku Okubo	I-b Laboratory for Gene-Product Informatics
Kousaku Okubo1	I-b Laboratory for Gene-Product Informatics
Koyama, H.	J-c Cell Architecture Laboratory
Kozawa, Yumiko	F-b Mammalian Development Laboratory
Kreneisz, O.	C-c Division of Molecular and Developmental Biology
Kris Popendorf	A-a Division of Molecular Genetics
Kryukov, K.	D-a Division of Population Genetics
Kryukov, K.	D-a Division of Population Genetics
Kubo T	I-b Laboratory for Gene-Product Informatics
Kubo, T.	F-e Plant Genetics Laboratory
Kubota, T.	F-c Mouse Genomics Resource Laboratory
Kudrna, D.	F-e Plant Genetics Laboratory
Kuhn, M.	I-b Laboratory for Gene-Product Informatics
Kulik M.	H-a Biological Macromolecules
Kulski, JK.	I-a Laboratory for DNA Data Analysis
Kundu TK	B-b Division of Microbial Genetics
Kurabayashi A	G-b Genome biology Laboratory
Kurata N	G-b Genome biology Laboratory
Kurata N.	I-b Laboratory for Gene-Product Informatics

	F-e Plant Genetics Laboratory
Kurata, N.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory G-a Genetic Informatics Laboratory
Kurihara Y	Hb Laboratory for Gene-Product Informatics
Kurokawa, K.	G-c Comparative Genomics Laboratory
Kusaba M	G-b Genome biology Laboratory
Kusaba, M.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory G-a Genetic Informatics Laboratory
Kuwada, J. Y.	J-d Motor Neural Circuit Laboratory
Kwa, C.	F-c Mouse Genomics Resource Laboratory
L, sman	Ia Laboratory for DNA Data Analysis
Lal, P.	C-c Division of Molecular and Developmental Biology
Lal, P.	C-c Division of Molecular and Developmental Biology
Lampson, M.A.	A-a Division of Molecular Genetics
Lapp, H.	Hb Laboratory for Gene-Product Informatics
Le Saux	C-c Division of Molecular and Developmental Biology
Lee, M.T.	C-c Division of Molecular and Developmental Biology
Lee, S. F.	D-a Division of Population Genetics
Lehvaslaiho, H.	Hb Laboratory for Gene-Product Informatics
Leucht, C.	C-c Division of Molecular and Developmental Biology
Levin, M.	Ia Laboratory for DNA Data Analysis
Lewis, SE.	Ia Laboratory for DNA Data Analysis
Li, J.	A-a Division of Molecular Genetics Ia Laboratory for DNA Data Analysis
Liang, P.	A-a Division of Molecular Genetics
Liao, C.H.	C-c Division of Molecular and Developmental Biology
Lin, G.H.	C-c Division of Molecular and Developmental Biology
Lin, P.Y.	C-c Division of Molecular and Developmental Biology
Liu Z	F-b Mammalian Development Laboratory
Liu, D.	A-a Division of Molecular Genetics
Lorieux, M.	F-e Plant Genetics Laboratory
Low, S. E.	J-d Motor Neural Circuit Laboratory
Lu J.	H-a Biological Macromolecules
Lu, F.	Hb Laboratory for Gene-Product Informatics
Lu, Fu.	E-b Division of Agricultural Genetics
Luo, M.	F-e Plant Genetics Laboratory
M. E.	D-a Division of Population Genetics
M.A.	A-a Division of Molecular Genetics
Mackowiak, S.	G-b Genome biology Laboratory
Maehara, K.	D-a Division of Population Genetics
Maekawa, H.	F-a Mammalian Genetics Laboratory
Maekawa, T.	F-a Mammalian Genetics Laboratory
Maeshima, K.	H-a Biological Macromolecules
Mahmood, A.	D-a Division of Population Genetics
Maiko Kanai	H-e Gene Network Laboratory

Maki, H.	B-a Division of Cytogenetics
Makoto Kusaba	G-a Genetic Informatics Laboratory
Mangone, M.	G-b Genome biology Laboratory
Manickavelu A	G-b Genome biology Laboratory
Manoharan, AP.	G-b Genome biology Laboratory
Mark E. Fortini	H-e Gene Network Laboratory
Maro, G.	C-c Division of Molecular and Developmental Biology
Masahide,Sakabe.	F-b Mammalian Development Laboratory
Masai, H.	F-f Microbial Genetics Laboratory
Masashi Yamaji	F-b Mammalian Development Laboratory
Masataka Kinjo	H-a Biological Macromolecules
Masato,Ota	F-b Mammalian Development Laboratory
Masatomo Kobayashi	G-a Genetic Informatics Laboratory
Masatoshi Yamamoto	G-a Genetic Informatics Laboratory
Mashima J	Ib Laboratory for Gene-Product Informatics
Mashima, J.	Ia Laboratory for DNA Data Analysis
Mashino, S.	D-a Division of Population Genetics
Masuya, H.	F-c Mouse Genomics Resource Laboratory
Matsuda, R.	A-a Division of Molecular Genetics
Matsui A	Ib Laboratory for Gene-Product Informatics
Matsui, H.	G-c Comparative Genomics Laboratory
Matsumoto, K.	C-c Division of Molecular and Developmental Biology
Matsunami M.	D-a Division of Population Genetics
Matsunami,M.	D-a Division of Population Genetics
Matsuno, K.	D-a Division of Population Genetics
Matsuo, H.	C-c Division of Molecular and Developmental Biology
Matsuoka, K.	F-a Mammalian Genetics Laboratory
Matsushima, Y.	F-a Mammalian Genetics Laboratory
Matsusue A.	D-a Division of Population Genetics
Matsuya, A.	Ia Laboratory for DNA Data Analysis
Matsuyama, S.	H-a Biological Macromolecules
Matuzawa T	G-b Genome biology Laboratory
Matuzawa, T.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory
Mayo Shigeta	F-b Mammalian Development Laboratory
McEwen, B.F.	A-a Division of Molecular Genetics
Miczek, K.A.	F-c Mouse Genomics Resource Laboratory
Midorikawa, R.	F-g Invertebrate Genetics Laboratory
Midorikawa,R.	H-e Gene Network Laboratory
Mignot, E.	C-c Division of Molecular and Developmental Biology
Mikhail Eltsov	H-a Biological Macromolecules
Mimura, H.	H-a Biological Macromolecules
Minami, C.	Ib Laboratory for Gene-Product Informatics
Minamisawa, K.	Ib Laboratory for Gene-Product Informatics
Minegishi, Y.	F-a Mammalian Genetics Laboratory
Minowa, O.	F-c Mouse Genomics Resource Laboratory

Mis, E.	G-b Genome biology Laboratory
Mita, A.	F-a Mammalian Genetics Laboratory
Mita, S.	E-c Division of Brain Function
Mitani S	G-b Genome biology Laboratory
Mitani, S.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory
Mitinori Saito	F-b Mammalian Development Laboratory
Mitsugu Eiguchi	L EXPERIMENTAL FARM
Mitsui, H.	Hb Laboratory for Gene-Product Informatics
Mitsuru,Morimoto	F-b Mammalian Development Laboratory
Mitsuru,Morimoto.	F-b Mammalian Development Laboratory
Miura K.	Ia Laboratory for DNA Data Analysis
Miura, K.	G-a Genetic Informatics Laboratory
Miura-Kamio, A.	Hb Laboratory for Gene-Product Informatics E-b Division of Agricultural Genetics
Miyabayashi, T.	F-e Plant Genetics Laboratory
Miyabe, I.	F-f Microbial Genetics Laboratory
Miyakawa, T.	F-c Mouse Genomics Resource Laboratory
Miyake, K.	F-c Mouse Genomics Resource Laboratory
Miyazaki S	L EXPERIMENTAL FARM
Miyazaki, M.	F-a Mammalian Genetics Laboratory
Miyazaki, T.	B-a Division of Cytogenetics
Mizoguchi, T.	C-c Division of Molecular and Developmental Biology
Mizrachi, IK.	Ia Laboratory for DNA Data Analysis
Mizuta Y	Hb Laboratory for Gene-Product Informatics
Mizuta, Y.	F-e Plant Genetics Laboratory
Mochizuki T	Hb Laboratory for Gene-Product Informatics
Mochizuki Y	Hb Laboratory for Gene-Product Informatics
Mochizuki, T.	Hb Laboratory for Gene-Product Informatics F-e Plant Genetics Laboratory
Moe,Matsuo	F-b Mammalian Development Laboratory
Moolhuijzen, P.	Ia Laboratory for DNA Data Analysis
Mori, A.	F-c Mouse Genomics Resource Laboratory
Mori, K.	F-a Mammalian Genetics Laboratory
Mori, R.	C-c Division of Molecular and Developmental Biology
Morikawa,R.	H-e Gene Network Laboratory
Morimoto M	F-b Mammalian Development Laboratory
Morio Ueyama	F-g Invertebrate Genetics Laboratory
Morishima, H.	F-e Plant Genetics Laboratory
Morita, H.	G-c Comparative Genomics Laboratory
Morita, R.	C-c Division of Molecular and Developmental Biology
Moriwaki,K.	F-a Mammalian Genetics Laboratory
Moriya Okuma	G-a Genetic Informatics Laboratory
Morokuma, J.	Ia Laboratory for DNA Data Analysis
Morosawa T	Hb Laboratory for Gene-Product Informatics
Motegi, H.	F-c Mouse Genomics Resource Laboratory

Mouri, N.	C-c Division of Molecular and Developmental Biology
Mourrain, P.	C-c Division of Molecular and Developmental Biology
Murakami S.	H-d Biomolecular Structure Laboratory
Murakami, K.	I-a Laboratory for DNA Data Analysis
Murakoshi, S.	I-a Laboratory for DNA Data Analysis
Muramatsu, S.	B-b Division of Microbial Genetics
Muto, A.	C-c Division of Molecular and Developmental Biology
NAKAJIMA, R.	F-f Microbial Genetics Laboratory
Nagai	J-f Multicellular Society Laboratory
Nagai, K.	F-c Mouse Genomics Resource Laboratory
Nagasaki, H.	I-b Laboratory for Gene-Product Informatics F-e Plant Genetics Laboratory
Nagata T	I-b Laboratory for Gene-Product Informatics
Nagata, T.	F-e Plant Genetics Laboratory
Nagato, Y.	F-e Plant Genetics Laboratory G-a Genetic Informatics Laboratory
Nakagawa S.	I-a Laboratory for DNA Data Analysis
Nakahara, Yoriaki	F-b Mammalian Development Laboratory
Nakai, J.	C-c Division of Molecular and Developmental Biology
Nakaminami K	I-b Laboratory for Gene-Product Informatics
Nakamura T	G-b Genome biology Laboratory
Nakamura Y	G-b Genome biology Laboratory
Nakamura Y.	I-b Laboratory for Gene-Product Informatics
Nakamura, H.	I-b Laboratory for Gene-Product Informatics
Nakamura, T.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory
Nakamura, W.	C-c Division of Molecular and Developmental Biology
Nakamura, Y.	I-b Laboratory for Gene-Product Informatics E-b Division of Agricultural Genetics F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory I-a Laboratory for DNA Data Analysis
Nakamura, Y.	I-a Laboratory for DNA Data Analysis
Nakano, Y.	J-d Motor Neural Circuit Laboratory
Nakao M	I-b Laboratory for Gene-Product Informatics
Nakao, M.	I-b Laboratory for Gene-Product Informatics
Nakaoka, H.	I-a Laboratory for DNA Data Analysis
Nakatomi R.	H-a Biological Macromolecules
Nakatomi, R.	H-a Biological Macromolecules
Nakatsuji N	G-b Genome biology Laboratory
Nakatsuji, N.	G-c Comparative Genomics Laboratory F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory
Nakatsukasa, H.	I-b Laboratory for Gene-Product Informatics
Nakayama, R.	C-c Division of Molecular and Developmental Biology
Nakayama, S.	I-b Laboratory for Gene-Product Informatics
Nakazaki, N.	I-b Laboratory for Gene-Product Informatics

Namiki, N.	Ib Laboratory for Gene-Product Informatics
Nanba, N.	D-a Division of Population Genetics
Naoko Imamoto	H-a Biological Macromolecules
Narita T	G-b Genome biology Laboratory
Naruse K	G-b Genome biology Laboratory
Naruse, K.	F-a Mammalian Genetics Laboratory F-d Model Fish Genomics Resource F-e Plant Genetics Laboratory
Natsume, T.	C-c Division of Molecular and Developmental Biology
Nave, K-A	E-c Division of Brain Function
Nawa,H.	C-b Division of Neurogenetics
Neveu, P.	C-c Division of Molecular and Developmental Biology
Ng, M.H.	A-a Division of Molecular Genetics
Niihama M	Ib Laboratory for Gene-Product Informatics
Niihama, M.	F-e Plant Genetics Laboratory
Niimura Y.	Ia Laboratory for DNA Data Analysis
Niki H	G-b Genome biology Laboratory
Niki, H.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory F-f Microbial Genetics Laboratory
Nishi, A.	F-a Mammalian Genetics Laboratory F-c Mouse Genomics Resource Laboratory
Nishihara S	F-g Invertebrate Genetics Laboratory
Nishihara, S.	F-g Invertebrate Genetics Laboratory
Nishikawa, K.	C-c Division of Molecular and Developmental Biology
Nishimukai H.	D-a Division of Population Genetics
Nishimura M.	H-a Biological Macromolecules
Nishino, T.	A-a Division of Molecular Genetics
Nishino, Y.	H-a Biological Macromolecules
Nishito, Y.	G-c Comparative Genomics Laboratory
Nishizawa, T.	Ib Laboratory for Gene-Product Informatics
Nitasaka E	G-b Genome biology Laboratory
Nitasaka, E.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory G-a Genetic Informatics Laboratory
Nitta, M.	G-a Genetic Informatics Laboratory
Nobata, C.	Ib Laboratory for Gene-Product Informatics
Noce, T.	G-c Comparative Genomics Laboratory
Noda, A.	Ia Laboratory for DNA Data Analysis
Noda, T.	F-c Mouse Genomics Resource Laboratory
Nogawa, T.	G-c Comparative Genomics Laboratory
Noguchi, T.	Ib Laboratory for Gene-Product Informatics
Nomura, N.	F-a Mammalian Genetics Laboratory
Nonomura, K.	C-c Division of Molecular and Developmental Biology G-a Genetic Informatics Laboratory
Nonomura, K. I.	F-e Plant Genetics Laboratory
Nori Kurata	G-a Genetic Informatics Laboratory

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Nori Kurata1	Ib Laboratory for Gene-Product Informatics
Norio Nakatsuji	G-a Genetic Informatics Laboratory
Noro, M.	F-a Mammalian Genetics Laboratory
Nozaki, N.	A-a Division of Molecular Genetics
Obata Y	G-b Genome biology Laboratory
Obata, Y.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory
Obuse, C.	A-a Division of Molecular Genetics
Oda, Y.	J-d Motor Neural Circuit Laboratory
Ogasawara O	Ib Laboratory for Gene-Product Informatics
Ogasawara, O.	Ia Laboratory for DNA Data Analysis
Ogihara Y	G-b Genome biology Laboratory
Ogino, K.	J-d Motor Neural Circuit Laboratory
Oginuma M	F-b Mammalian Development Laboratory
Oginuma,	J-c Cell Architecture Laboratory
Ogura K	G-b Genome biology Laboratory
Ogura, A.	Ia Laboratory for DNA Data Analysis
Ogura, Y.	G-c Comparative Genomics Laboratory
Ohazama,.Yukishige	F-b Mammalian Development Laboratory
Ohkura, M.	C-c Division of Molecular and Developmental Biology
Ohnishi, T.	F-e Plant Genetics Laboratory
Ohnishi, Y.	G-c Comparative Genomics Laboratory
Ohta, K.	F-a Mammalian Genetics Laboratory
Ohta, S.	A-a Division of Molecular Genetics
Ohyama, A.	Ib Laboratory for Gene-Product Informatics
Ohyanagi, H.	F-e Plant Genetics Laboratory
Oinn, T.M.	Ib Laboratory for Gene-Product Informatics
Oishi K	G-b Genome biology Laboratory
Oka, A.	F-a Mammalian Genetics Laboratory
Okabe A	G-b Genome biology Laboratory
Okada T	G-b Genome biology Laboratory
Okamoto H	G-b Genome biology Laboratory
Okamoto M	Ib Laboratory for Gene-Product Informatics
Okamoto S	Ib Laboratory for Gene-Product Informatics
Okamoto, H.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory
Okamoto, S.	Ib Laboratory for Gene-Product Informatics
Okano, H.	F-g Invertebrate Genetics Laboratory
Okayama, T.	Ia Laboratory for DNA Data Analysis
Okigawa, S.	C-c Division of Molecular and Developmental Biology
Okubo K	Ib Laboratory for Gene-Product Informatics
Okubo, K.	Ia Laboratory for DNA Data Analysis
Okuma M	G-b Genome biology Laboratory
Okuma, M.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory

Olsen, L.C.	F-d Model Fish Genomics Resource
Omura T	G-b Genome biology Laboratory
Onami, S.	J-c Cell Architecture Laboratory
Ono, A.	Ib Laboratory for Gene-Product Informatics
Ono, K.	Ib Laboratory for Gene-Product Informatics
Ooga K	G-b Genome biology Laboratory
Ooka, T.	G-c Comparative Genomics Laboratory
Oota S.	D-a Division of Population Genetics
Orchard, S.	Ia Laboratory for DNA Data Analysis
Osada, H.	F-a Mammalian Genetics Laboratory
Osamu,Nakagawa.	F-b Mammalian Development Laboratory
Osana, Y.	G-c Comparative Genomics Laboratory
Oshida T	Ia Laboratory for DNA Data Analysis
Oshima, K.	G-c Comparative Genomics Laboratory
Oshima, M.	D-a Division of Population Genetics
Ouchi, Y.	Ia Laboratory for DNA Data Analysis
Ouellette, BF.	Ia Laboratory for DNA Data Analysis
Oviedo, NJ.	Ia Laboratory for DNA Data Analysis
Owen, S.	Ib Laboratory for Gene-Product Informatics
Ozbek, S.	Ia Laboratory for DNA Data Analysis
Paderi F.	F-f Microbial Genetics Laboratory
Pafilis, E.	Ib Laboratory for Gene-Product Informatics
Papp B.	H-a Biological Macromolecules
Park, SH.	G-c Comparative Genomics Laboratory
Perpelescu, M.	A-a Division of Molecular Genetics
Piano, F.	G-b Genome biology Laboratory
Platani, M.	A-a Division of Molecular Genetics
Plath K.	H-a Biological Macromolecules
Pocock, M.	Ib Laboratory for Gene-Product Informatics
Ponting, C.P.	A-a Division of Molecular Genetics
Pope B.D.	H-a Biological Macromolecules
Popendorf, K.	A-a Division of Molecular Genetics G-c Comparative Genomics Laboratory
Prieto E	B-b Division of Microbial Genetics
Prins, P.	Ib Laboratory for Gene-Product Informatics
Quadros, I.M.	F-c Mouse Genomics Resource Laboratory
R.A..	F-e Plant Genetics Laboratory
R.M.	F-c Mouse Genomics Resource Laboratory
Rahael.	F-b Mammalian Development Laboratory
Rajewsky, N.	G-b Genome biology Laboratory
Rako, L.	D-a Division of Population Genetics
Rampon, C.	C-c Division of Molecular and Developmental Biology
Ramsden, S.	J-d Motor Neural Circuit Laboratory
Ranganathan, S.	Ia Laboratory for DNA Data Analysis
Ranzinger, R.	Ib Laboratory for Gene-Product Informatics
Rathjen J.	H-a Biological Macromolecules

Rathjen P.D.	H-a Biological Macromolecules
Reisinger. F.	Ib Laboratory for Gene-Product Informatics
Ribeiro, S.A.	A-a Division of Molecular Genetics
Richardson, L.	Ia Laboratory for DNA Data Analysis
Rie ,Saba.	F-b Mammalian Development Laboratory
Rie Saba	F-b Mammalian Development Laboratory
Rie Tsuchiya	L EXPERIMENTAL FARM
Rocca-Serra, P.	Ia Laboratory for DNA Data Analysis
Rothan, C.	Ib Laboratory for Gene-Product Informatics
Ryan, J.	J-d Motor Neural Circuit Laboratory
Ryba T.	H-a Biological Macromolecules
Ryo Akashi	G-a Genetic Informatics Laboratory
Ryo Sugimoto	F-b Mammalian Development Laboratory
Ryo,Sugimoto.	F-b Mammalian Development Laboratory
Ryu Ueda	F-g Invertebrate Genetics Laboratory
S.F.	D-a Division of Population Genetics
Saba R	F-b Mammalian Development Laboratory
Sada A	F-b Mammalian Development Laboratory
Saga Y.	F-b Mammalian Development Laboratory
Saga, Y.	E-c Division of Brain Function
Saga, Hiroyuki	F-b Mammalian Development Laboratory
Saga, Jun	F-b Mammalian Development Laboratory
Saga, Kopan	F-b Mammalian Development Laboratory
Saga, Paul	F-b Mammalian Development Laboratory
Saga, Yumiko.	F-b Mammalian Development Laboratory
Saga.	F-b Mammalian Development Laboratory
Saint-Amant, L.	J-d Motor Neural Circuit Laboratory
Saito, K.	F-d Model Fish Genomics Resource
Saito, M.	G-a Genetic Informatics Laboratory
Saito, T.	G-a Genetic Informatics Laboratory
Saitou N.	D-a Division of Population Genetics
Saitou, N.	D-a Division of Population Genetics Ia Laboratory for DNA Data Analysis
Saitou,N.	D-a Division of Population Genetics
Sakaguchi, T.	Ib Laboratory for Gene-Product Informatics F-e Plant Genetics Laboratory
Sakai T	Ia Laboratory for DNA Data Analysis
Sakai, N.	F-d Model Fish Genomics Resource
Sakaki, Y.	G-c Comparative Genomics Laboratory
Sakakibara, Y.	A-a Division of Molecular Genetics G-c Comparative Genomics Laboratory
Sakamoto,S.	B-b Division of Microbial Genetics
Sakaniwa, S.	F-e Plant Genetics Laboratory G-a Genetic Informatics Laboratory
Sakata, Y.	G-c Comparative Genomics Laboratory
Sakate, R.	Ia Laboratory for DNA Data Analysis
Sakurai N	G-b Genome biology Laboratory

Salehi-Ashtiani, K.	G-b Genome biology Laboratory
Salmon, E.D.	A-a Division of Molecular Genetics
Salwinski, L.	Hb Laboratory for Gene-Product Informatics
Sanchez-Pulido, L.	A-a Division of Molecular Genetics
Sano, Y.	H-a Biological Macromolecules
Sansone, SA.	Ia Laboratory for DNA Data Analysis
Saruhashi Satoshi	Hb Laboratory for Gene-Product Informatics
Saruhashi, S.	Hb Laboratory for Gene-Product Informatics
Saruhashi,S.	Ia Laboratory for DNA Data Analysis
Sasaki, H.	G-c Comparative Genomics Laboratory
Sasamoto, H.	G-c Comparative Genomics Laboratory
Sasamoto, S.	Hb Laboratory for Gene-Product Informatics
Sassa, T.	C-c Division of Molecular and Developmental Biology
Sato K	G-b Genome biology Laboratory
Sato S	Hb Laboratory for Gene-Product Informatics
Sato Y	G-b Genome biology Laboratory
Sato, K.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory G-a Genetic Informatics Laboratory
Sato, S.	Hb Laboratory for Gene-Product Informatics
Sato, Y.	D-a Division of Population Genetics F-e Plant Genetics Laboratory Ia Laboratory for DNA Data Analysis
Satoh S	G-b Genome biology Laboratory
Satoh, H.	F-e Plant Genetics Laboratory G-a Genetic Informatics Laboratory
Satoshi Saruhashi	Hb Laboratory for Gene-Product Informatics
Satoshi Saruhashi1	Hb Laboratory for Gene-Product Informatics
Satou, C.	C-c Division of Molecular and Developmental Biology
Satou, M.	D-a Division of Population Genetics
Sawamura, K.	D-a Division of Population Genetics
Saze, H.	Hb Laboratory for Gene-Product Informatics E-b Division of Agricultural Genetics
Schibeci, D.	Ia Laboratory for DNA Data Analysis
Schmidt,J.C.	A-a Division of Molecular Genetics
Schofield, PN.	Ia Laboratory for DNA Data Analysis
Schreiber, M.	Hb Laboratory for Gene-Product Informatics
Seielstad, M.	Ia Laboratory for DNA Data Analysis
Seki M.	Hb Laboratory for Gene-Product Informatics
Seki, M.	G-c Comparative Genomics Laboratory
Seki, Y.	F-a Mammalian Genetics Laboratory
Senger. M	Hb Laboratory for Gene-Product Informatics
Serikawa T	G-b Genome biology Laboratory
Serikawa, T.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory
Shang, W.H.	A-a Division of Molecular Genetics
Shang. W.	G-c Comparative Genomics Laboratory

Sharpe, Takashi	F-b Mammalian Development Laboratory
Shenton, M.	F-e Plant Genetics Laboratory
Shibata D.	G-b Genome biology Laboratory
Shibata, T.	G-c Comparative Genomics Laboratory
Shibaya, T.	Ib Laboratory for Gene-Product Informatics
Shigeyoshi, Y.	C-c Division of Molecular and Developmental Biology
Shiina, T.	D-a Division of Population Genetics
Shimada, A.	F-d Model Fish Genomics Resource
Shimada, M.	Ia Laboratory for DNA Data Analysis
Shimada, S.	C-c Division of Molecular and Developmental Biology
Shimamoto, A.	F-c Mouse Genomics Resource Laboratory
Shimizu H	C-a Division of Developmental Genetics
Shimizu, Y.	Ib Laboratory for Gene-Product Informatics
Shimura, M.	H-a Biological Macromolecules
Shin-I T	G-b Genome biology Laboratory
Shingo Sakaniwa	L EXPERIMENTAL FARM
Shinichiro Chuma	F-b Mammalian Development Laboratory
Shinichiro Yamaki	L EXPERIMENTAL FARM
Shinozaki K	Ib Laboratory for Gene-Product Informatics
Shinozaki, K.	G-c Comparative Genomics Laboratory
Shinya, M.	F-d Model Fish Genomics Resource
Shiraki, T.	C-c Division of Molecular and Developmental Biology
Shirakihara, Y.	H-d Biomolecular Structure Laboratory
Shirasawa, K.	Ib Laboratory for Gene-Product Informatics
Shiroishi T	G-b Genome biology Laboratory
Shiroishi, T	F-a Mammalian Genetics Laboratory
Shiroishi, T.	F-a Mammalian Genetics Laboratory F-c Mouse Genomics Resource Laboratory F-e Plant Genetics Laboratory
Shiroishi, T..	F-a Mammalian Genetics Laboratory
Shiromoto, Y.	G-c Comparative Genomics Laboratory
Shohei Mitani	G-a Genetic Informatics Laboratory
Shoko Nishihara	F-g Invertebrate Genetics Laboratory
Shosei ,Yoshida.	F-b Mammalian Development Laboratory
Shosei Yoshida	F-b Mammalian Development Laboratory
Sinha, D.K.	C-c Division of Molecular and Developmental Biology
Sisneros, N.	F-e Plant Genetics Laboratory
Smedley, D.	Ia Laboratory for DNA Data Analysis
Smith, S.	C-c Division of Molecular and Developmental Biology
Song, X.	F-e Plant Genetics Laboratory
Southan, C.	Ia Laboratory for DNA Data Analysis
Sprague, S. M.	J-d Motor Neural Circuit Laboratory
Srikumool, M.	Ia Laboratory for DNA Data Analysis
Srivastava, G.	A-a Division of Molecular Genetics
St,ley	Ib Laboratory for Gene-Product Informatics
Steele, RE.	Ia Laboratory for DNA Data Analysis

Suda K	G-b Genome biology Laboratory
Sugahara, K.	Ia Laboratory for DNA Data Analysis
Sugano, S.	G-b Genome biology Laboratory Ia Laboratory for DNA Data Analysis
Sugawara H	G-b Genome biology Laboratory
Sugawara, H	F-a Mammalian Genetics Laboratory
Sugawara, H.	Ib Laboratory for Gene-Product Informatics F-e Plant Genetics Laboratory Ia Laboratory for DNA Data Analysis
Sugawara, T.	J-c Cell Architecture Laboratory
Sugawara,H.	Ia Laboratory for DNA Data Analysis
Sumiyama K.	D-a Division of Population Genetics
Sumiyama, K.	C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics
Sumiyama,K.	D-a Division of Population Genetics
Suster, M.	C-c Division of Molecular and Developmental Biology
Suster, M.L.	C-c Division of Molecular and Developmental Biology
Suwabe, K.	F-e Plant Genetics Laboratory
Suzuki A	G-b Genome biology Laboratory F-b Mammalian Development Laboratory
Suzuki H	F-b Mammalian Development Laboratory
Suzuki T	G-b Genome biology Laboratory
Suzuki T.	H-d Biomolecular Structure Laboratory
Suzuki Y	Ia Laboratory for DNA Data Analysis
Suzuki, A.	A-a Division of Molecular Genetics
Suzuki, E.	F-g Invertebrate Genetics Laboratory
Suzuki, I.	E-c Division of Brain Function
Suzuki, T.	F-c Mouse Genomics Resource Laboratory
Suzuki, Y.	G-b Genome biology Laboratory C-c Division of Molecular and Developmental Biology Ia Laboratory for DNA Data Analysis
Suzuki,E.	H-e Gene Network Laboratory
Suzuki,R.	D-a Division of Population Genetics
T. Fukagawa	A-a Division of Molecular Genetics
T. Hori	A-a Division of Molecular Genetics
T. Nisino	A-a Division of Molecular Genetics
Tabata S	Ib Laboratory for Gene-Product Informatics
Tabata, S.	Ib Laboratory for Gene-Product Informatics
Tachibana, T.	H-a Biological Macromolecules
Tachida H	C-a Division of Developmental Genetics
Tada, M.	C-c Division of Molecular and Developmental Biology
Tadao Serikawa	G-a Genetic Informatics Laboratory
Tadashi Isa	G-a Genetic Informatics Laboratory
Taji, T.	G-c Comparative Genomics Laboratory
Tak, Y-S.	B-b Division of Microbial Genetics
Takada, T.	F-a Mammalian Genetics Laboratory
Takada, Y.	F-a Mammalian Genetics Laboratory

Takagi T	Ib Laboratory for Gene-Product Informatics
Takagi, H.	G-c Comparative Genomics Laboratory
Takagi, T.	Ia Laboratory for DNA Data Analysis
Takahashi H	G-b Genome biology Laboratory
Takahashi Y	F-b Mammalian Development Laboratory
Takahashi, A.	D-a Division of Population Genetics F-a Mammalian Genetics Laboratory F-c Mouse Genomics Resource Laboratory
Takahashi, C.	Ib Laboratory for Gene-Product Informatics
Takahashi, K. H.	D-a Division of Population Genetics
Takahashi, R.	G-c Comparative Genomics Laboratory
Takahashi, S.	G-c Comparative Genomics Laboratory
Takahashi, Y.	J-c Cell Architecture Laboratory C-c Division of Molecular and Developmental Biology G-a Genetic Informatics Laboratory
Takahashi,H.	C-b Division of Neurogenetics
Takahashi,M.	D-a Division of Population Genetics
Takahiko Kubo	L EXPERIMENTAL FARM
Takahoko, M.	C-c Division of Molecular and Developmental Biology
Takako Mochizuki	Ib Laboratory for Gene-Product Informatics
Takako Mochizuki1	Ib Laboratory for Gene-Product Informatics
Takakubo, H.	C-c Division of Molecular and Developmental Biology
Takamatsu, K.	G-c Comparative Genomics Laboratory
Takano-Shimizu, T.	D-a Division of Population Genetics
Takano-Shimizu,T.	D-a Division of Population Genetics
Takao, K.	F-c Mouse Genomics Resource Laboratory
Takashi Endo	G-a Genetic Informatics Laboratory
Takashi Gojobori	Ia Laboratory for DNA Data Analysis
Takashi Tanaka	F-b Mammalian Development Laboratory
Takayama, K.	Ia Laboratory for DNA Data Analysis
Takeda, H.	F-d Model Fish Genomics Resource
Takeda, J.	C-c Division of Molecular and Developmental Biology Ia Laboratory for DNA Data Analysis
Takeda, S.	G-c Comparative Genomics Laboratory
Takeda,.Sumito	F-b Mammalian Development Laboratory
Takeshi Sasamura	H-e Gene Network Laboratory
Taketomo, N.	G-a Genetic Informatics Laboratory
Takeuchi, K.	A-a Division of Molecular Genetics
Takeuchi, M.	C-c Division of Molecular and Developmental Biology
Takeyasu K.	B-b Division of Microbial Genetics
Takisawa, H.	J-e Molecular Function Laboratory
Tamasaku, K.	H-a Biological Macromolecules
Tamura, K.	C-c Division of Molecular and Developmental Biology F-a Mammalian Genetics Laboratory
Tamura, M.	F-a Mammalian Genetics Laboratory
Tan, TW.	Ia Laboratory for DNA Data Analysis

Tanabe, Y.	C-b Division of Neurogenetics
Tanaka M	Hb Laboratory for Gene-Product Informatics
Tanaka, I.	H-d Biomolecular Structure Laboratory
Tanaka, K. M.	D-a Division of Population Genetics
Tanaka, N.	F-c Mouse Genomics Resource Laboratory
Tanaka, S.	G-c Comparative Genomics Laboratory F-a Mammalian Genetics Laboratory B-b Division of Microbial Genetics
Tanaka, T.	B-b Division of Microbial Genetics
Tanaka, Y.	B-b Division of Microbial Genetics
Tanaka, M.	C-b Division of Neurogenetics
Tanaka, S.	B-b Division of Microbial Genetics
Tanave, A.	F-c Mouse Genomics Resource Laboratory
Tange, Y.	F-a Mammalian Genetics Laboratory
Taniguchi, Y.	G-c Comparative Genomics Laboratory
Tanikawa, H.	H-d Biomolecular Structure Laboratory
Taro Nakamura	G-a Genetic Informatics Laboratory
Tashiro, T.	Hb Laboratory for Gene-Product Informatics
Tateno, Y.	Hb Laboratory for Gene-Product Informatics G-a Genetic Informatics Laboratory
Tateno, Y.	Ia Laboratory for DNA Data Analysis
Tatsuo Fukagawa	A-a Division of Molecular Genetics
Tatusova, T.	Ia Laboratory for DNA Data Analysis
Taylor, C.	Ia Laboratory for DNA Data Analysis
Taylor, TD.	G-c Comparative Genomics Laboratory
Tetsuro Matuzawa	G-a Genetic Informatics Laboratory
Tetsuya Hori	A-a Division of Molecular Genetics
Tetsuya Ishikawa	H-a Biological Macromolecules
Thierry-Mieg, D.	G-b Genome biology Laboratory
Thierry-Mieg, J.	G-b Genome biology Laboratory
To TK	Hb Laboratory for Gene-Product Informatics
Todokoro, F.	Ia Laboratory for DNA Data Analysis
Toh, H.	G-c Comparative Genomics Laboratory
Toki, H.	F-c Mouse Genomics Resource Laboratory
Tokunaga, K.	G-c Comparative Genomics Laboratory
Tomihara, K.	F-a Mammalian Genetics Laboratory F-c Mouse Genomics Resource Laboratory
Tomoki, Matsuda.	J-f Multicellular Society Laboratory
Tomoko Yamakawa	H-e Gene Network Laboratory
Tomomi Ichimiya	F-g Invertebrate Genetics Laboratory
Tomonaga K.	Ia Laboratory for DNA Data Analysis
Tomoyuki Aizu1	Hb Laboratory for Gene-Product Informatics
Torii M	G-b Genome biology Laboratory
Toru, Matsu-ura.	J-f Multicellular Society Laboratory
Toshie Miyabayashi	L EXPERIMENTAL FARM
Toshifumi Nagata1	Hb Laboratory for Gene-Product Informatics
Toshihiko Shiroishi	G-a Genetic Informatics Laboratory

Toshihisa Takagi	I-b Laboratory for Gene-Product Informatics
Toshihisa Takagi1	I-b Laboratory for Gene-Product Informatics
Toshiro Aigaki	F-g Invertebrate Genetics Laboratory
Totoki, Y.	G-c Comparative Genomics Laboratory
Tovin, A.	C-c Division of Molecular and Developmental Biology
Toyoda T	I-b Laboratory for Gene-Product Informatics
Toyoda, A.	A-a Division of Molecular Genetics G-c Comparative Genomics Laboratory F-e Plant Genetics Laboratory
Trelles, O.	I-b Laboratory for Gene-Product Informatics
Tsetskhladze, Z.	C-c Division of Molecular and Developmental Biology
Tsuchiya, R.	F-e Plant Genetics Laboratory G-a Genetic Informatics Laboratory
Tsuda K	I-b Laboratory for Gene-Product Informatics
Tsuda, K.	F-e Plant Genetics Laboratory
Tsugane T	G-b Genome biology Laboratory
Tsuruoka, H.	I-b Laboratory for Gene-Product Informatics
Tsutsui, Y.	F-f Microbial Genetics Laboratory
Tsutsumi N	I-b Laboratory for Gene-Product Informatics
Tsutsumi, N.	F-e Plant Genetics Laboratory
Tsutsumi, S.	I-a Laboratory for DNA Data Analysis
Uchiyama, Y.	C-c Division of Molecular and Developmental Biology
Ueda Y	I-b Laboratory for Gene-Product Informatics
Ueda, R.	F-g Invertebrate Genetics Laboratory
Ueda, Y.	F-e Plant Genetics Laboratory
Ueda,R.	H-e Gene Network Laboratory
Uejima, A.	F-a Mammalian Genetics Laboratory
Ueki, M.	G-c Comparative Genomics Laboratory
Uemura, K.	G-c Comparative Genomics Laboratory
Ueyama, M.	F-g Invertebrate Genetics Laboratory
Umemori, J.	F-c Mouse Genomics Resource Laboratory
Umetsu K.	D-a Division of Population Genetics
Uno, T.	F-c Mouse Genomics Resource Laboratory
Uramoto, M.	G-c Comparative Genomics Laboratory
Urano, T.	I-a Laboratory for DNA Data Analysis
Urasaki, A.	C-c Division of Molecular and Developmental Biology
Urushibara H	G-b Genome biology Laboratory
Urushibara, H	F-a Mammalian Genetics Laboratory
Urushibara, H.	F-e Plant Genetics Laboratory
Vagnarelli, P.	A-a Division of Molecular Genetics
Vidal, M.	G-b Genome biology Laboratory
Vleugel, M.	A-a Division of Molecular Genetics
Volovitch, M.	C-c Division of Molecular and Developmental Biology
Vos, R.A.	I-b Laboratory for Gene-Product Informatics
W.C.	A-a Division of Molecular Genetics
W.Shang	A-a Division of Molecular Genetics

Wada, H.	C-c Division of Molecular and Developmental Biology
Wada, R.	F-a Mammalian Genetics Laboratory
Wada, T.	Hb Laboratory for Gene-Product Informatics
Wakana, S.	F-a Mammalian Genetics Laboratory F-c Mouse Genomics Resource Laboratory
Wakayama, M.	H-d Biomolecular Structure Laboratory
Waki, K.	F-c Mouse Genomics Resource Laboratory
Walentek, P.	I-a Laboratory for DNA Data Analysis
Wang, G.	C-c Division of Molecular and Developmental Biology
Ware, D.	F-e Plant Genetics Laboratory
Watanabe A.	H-a Biological Macromolecules
Watanabe M	G-b Genome biology Laboratory
Watanabe Y	G-b Genome biology Laboratory
Watanabe, A.	Hb Laboratory for Gene-Product Informatics
Watanabe, M.	C-c Division of Molecular and Developmental Biology G-a Genetic Informatics Laboratory
Watanabe, N.	H-d Biomolecular Structure Laboratory
Watanabe, T.	G-c Comparative Genomics Laboratory G-a Genetic Informatics Laboratory
Watase, G.	J-e Molecular Function Laboratory
Wei-Hao Shang	A-a Division of Molecular Genetics
Welburn, J.P.	A-a Division of Molecular Genetics
Werner, H.B.	E-c Division of Brain Function
Whetzel, PL.	I-a Laboratory for DNA Data Analysis
White, O.	I-a Laboratory for DNA Data Analysis
Wilkinson, M.D.	Hb Laboratory for Gene-Product Informatics
Winters N	F-b Mammalian Development Laboratory
Wood, L.	A-a Division of Molecular Genetics
Wu, B.K.	C-c Division of Molecular and Developmental Biology
Wu, X.	A-a Division of Molecular Genetics
Xu, S.	I-a Laboratory for DNA Data Analysis
Y. Sakakibara	A-a Division of Molecular Genetics
Yabashi, M.	H-a Biological Macromolecules
Yagita K	D-a Division of Population Genetics
Yagita, K.	C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics
Yagura, M.	B-b Division of Microbial Genetics
Yahata K.	H-a Biological Macromolecules
Yahiaoui N	G-b Genome biology Laboratory
Yamada, I.	F-c Mouse Genomics Resource Laboratory
Yamada, M.	Hb Laboratory for Gene-Product Informatics F-e Plant Genetics Laboratory
Yamada, S.	I-a Laboratory for DNA Data Analysis
Yamaguchi, A.	Hb Laboratory for Gene-Product Informatics
Yamaguchi, Y.	C-c Division of Molecular and Developmental Biology
Yamaguchi, T.	C-b Division of Neurogenetics
Yamaji, Y.	I-a Laboratory for DNA Data Analysis

Yamakawa, T.	G-a Genetic Informatics Laboratory
Yamaki S	Ib Laboratory for Gene-Product Informatics
Yamaki, S.	F-e Plant Genetics Laboratory
Yamamoto M	G-b Genome biology Laboratory
Yamamoto N	G-b Genome biology Laboratory
Yamamoto, M.	C-c Division of Molecular and Developmental Biology F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory
Yamamoto, N.	F-e Plant Genetics Laboratory
Yamamoto, T.	F-a Mammalian Genetics Laboratory
Yamamoto, Y.	G-c Comparative Genomics Laboratory Ib Laboratory for Gene-Product Informatics
Yamamoto-Hino, M.	F-g Invertebrate Genetics Laboratory
Yamamoto-Hino,M.	F-g Invertebrate Genetics Laboratory H-e Gene Network Laboratory
Yamanaka, I.	J-d Motor Neural Circuit Laboratory C-c Division of Molecular and Developmental Biology
Yamasaki, C.	Ia Laboratory for DNA Data Analysis
Yamashita, M.	C-c Division of Molecular and Developmental Biology
Yamatani, H.	E-c Division of Brain Function
Yamazaki Y	G-b Genome biology Laboratory
Yamazaki, Y.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory G-a Genetic Informatics Laboratory
Yanagisawa, Y.	B-b Division of Microbial Genetics
Yano K	G-b Genome biology Laboratory Ib Laboratory for Gene-Product Informatics
Yano M.	Ib Laboratory for Gene-Product Informatics
Yano, H.	F-g Invertebrate Genetics Laboratory
Yano, K.	F-e Plant Genetics Laboratory
Yano, M.	Ib Laboratory for Gene-Product Informatics
Yano, T.	C-c Division of Molecular and Developmental Biology
Yao, M.	H-d Biomolecular Structure Laboratory
Yaoita Y	G-b Genome biology Laboratory
Yaoita, Y.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory
Yasubumi Sakakibara	A-a Division of Molecular Genetics
Yasue, T.	F-a Mammalian Genetics Laboratory
Yasuhiko, Yumiko	F-b Mammalian Development Laboratory
Yasukazu Nakamura	Ib Laboratory for Gene-Product Informatics
Yasukazu Nakamura1	Ib Laboratory for Gene-Product Informatics
Yasumasa Joti	H-a Biological Macromolecules
Yasunaga,K.	H-e Gene Network Laboratory
Yates J.R. 3rd	A-a Division of Molecular Genetics
Yazawa K	G-b Genome biology Laboratory
Ymiko,Saga	F-b Mammalian Development Laboratory
Yo-ichi Nabeshima	F-b Mammalian Development Laboratory
Yo-ichi,Nabeshima.	F-b Mammalian Development Laboratory

Yoda, K.	A-a Division of Molecular Genetics
Yokogawa, T.	C-c Division of Molecular and Developmental Biology
Yokota H.	H-a Biological Macromolecules
Yokoyama, H.	C-c Division of Molecular and Developmental Biology F-a Mammalian Genetics Laboratory
Yonekawa, H.	F-a Mammalian Genetics Laboratory
Yonemaru, J.	Hb Laboratory for Gene-Product Informatics
Yonemura, S.	C-c Division of Molecular and Developmental Biology
York, W.	Hb Laboratory for Gene-Product Informatics
Yoshida M.	H-d Biomolecular Structure Laboratory
Yoshida, A.	C-c Division of Molecular and Developmental Biology Ia Laboratory for DNA Data Analysis
Yoshida, H.	F-a Mammalian Genetics Laboratory
Yoshida, S.	Ia Laboratory for DNA Data Analysis
Yoshihiro Akimoto	F-g Invertebrate Genetics Laboratory
Yoshikawa K	B-b Division of Microbial Genetics
Yoshiki A	G-b Genome biology Laboratory
Yoshiki, A.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory
Yoshimune, K.	H-d Biomolecular Structure Laboratory
Yoshimura, A.	G-a Genetic Informatics Laboratory
Yoshinori Nishino	H-a Biological Macromolecules
Yoshio Yaoita	G-a Genetic Informatics Laboratory
Yoshiyuki, Yamada.	J-f Multicellular Society Laboratory
Yoshizawa, A.	C-c Division of Molecular and Developmental Biology
Yu, Y.	F-e Plant Genetics Laboratory
Yu, Takahashi	F-b Mammalian Development Laboratory
Yuasa I.	D-a Division of Population Genetics
Yuasa, S.	F-c Mouse Genomics Resource Laboratory
Yuasa, Y.	C-a Division of Developmental Genetics
Yuichi Kodama	Hb Laboratory for Gene-Product Informatics
Yuichi Kodama1	Hb Laboratory for Gene-Product Informatics
Yuichi Obata	G-a Genetic Informatics Laboratory
Yuji Kohara	G-a Genetic Informatics Laboratory
Yuji, Nakajima.	F-b Mammalian Development Laboratory
Yukiko Yamazaki	G-a Genetic Informatics Laboratory L EXPERIMENTAL FARM
Yukio Nakamura	G-a Genetic Informatics Laboratory
Yukishita, R.	G-a Genetic Informatics 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
Yumoto, H.	H-a Biological Macromolecules
Yumoto, I	H-d Biomolecular Structure Laboratory
Yusuke Okubo	F-b Mammalian Development Laboratory
Yutaka Banno	G-a Genetic Informatics Laboratory

Yuzuru,kato.	F-b Mammalian Development Laboratory
Zegar, C.	G-b Genome biology Laboratory
Zenkert, C.	I-a Laboratory for DNA Data Analysis
Zhang J.	H-a Biological Macromolecules
Zhou, W.	J-d Motor Neural Circuit Laboratory
Zmasek, C.M.	I-b Laboratory for Gene-Product Informatics

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Biological Symposium

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2010 Lipid imaging by mass spectrometry(Mitsutoshi Setou)
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2010 Structure of Rad51-DNA complex filament, an intermediate of homologous recombination, studied by combination of optical spectroscopy, magnetic tweezers, mutation analysis and molecular modelling(Masayuki Takahashi)
- Apr,
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2010 An auxin based degron system to the new genetics of animal cells(Masato Kanemaki)
- Apr,
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2010 Anterior-posterior patterning in mouse - A role of TGFb superfamily signal(Masamichi Yamamoto)
- Apr,
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2010 Cellular and molecular mechanisms of morphogenesis in Volvox(Ichiro Nishii)
- Apr,
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2010 Function and Regulation of the atypical cadherin Fat in Planar Cell Polarity -How do cells recognize where they are in the plane of the epithelium?(Sakura Saburi)
- Apr,
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2010 Genetic and physiological analysis of motor development in zebrafish(Hiromi Hirata)
- Apr,
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2010 Imaging of intracellular ATP: Looking into cells through ATP(Hiromi Imamura)
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2010 Selective RNA Elimination; a conserved mechanism for preventing differentiation?(Tomoyasu Sugiyama)
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2010 Toward better understanding of pattern formation: How developmental programs are reliably operated in the presence of noise?(Kazuki Horikawa)
- Apr,
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2010 Development of Mammalian Circadian Systems(Kazuhiro Yagita)
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2010 Functional analysis of spinal locomotor circuits in zebrafish(Shinichi Higashijima)
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2010 Recent progress of research in molecular mechanism and structure of Photosystem II complex(Miwa Sugiura)

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2010 Clustering of the centralspindlin Kinesin-6/RhoGAP complex regulated by Aurora B and 14-3-3 is essential for its sharp midzone accumulation during cytokinesis. (Masanori Mishima)
- Apr,
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2010 Toward understanding "Symphony of 1000 cells"(Hitoshi Sawa)
- Apr,
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2010 Probing the size control mechanisms of the meiotic spindle assembled in Xenopus egg extracts(Takeshi Itabashi)
- Apr,
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2010 Higher Order Structure of Giant DNA and Radiosensitivity(Yuko Yoshikawa)
- Apr,
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2010 出芽酵母の26Sプロテアソーム複合体の形成に関与する因子の同定と解析 (Identification and analysis of the assembly factors govern biogenesis of the yeast 26S proteasome.)(Minoru Funakoshi)(舟越 稔)
- Apr,
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2010 Advances of medical genomics will bring in innovative healthcare system(Itsuro Inoue)
- May,
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2010 Genetic relationship among the present peoples in East/Southeast Asia in the light of autosomal tetranucleotide-repeat microsatellites(Toshimichi Yamamoto)
- May,
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2010 Getting the message across: mRNA sorting mechanisms in Drosophila embryos and neurons(Simon Bullock)
- May,
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2010 The catecholamine storage vesicle protein chromogranin A plays crucial roles in the regulation of blood pressure(Nitish R. Mahapatra)
- May,
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2010 Modernization of Biology: Vitalism vs Materialism(Mariko Hasegawa)
- May,
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2010 SPECIES AND THE 'TREE OF LIFE' A DISCUSSION OF VARIOUS OPTIONS FOR GRAPH-THEORETIC CONCEPTUALIZATIONS(Andreas Dress)
- May,
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2010 Profiling of embryonic and post-embryonic RNAi phenotypes in C. elegans(Naoko Iida)
- May,
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2010 Improved Support Vector Machines for Real-World Pattern Recognition(Boyang Li)
- May,
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2010 Deconstructing the brain with Slits and Robos(Alain Chédotal)
- Jun,
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2010 Evolution of eukaryotic DNA methylation(Daniel Zilberman)
- Jun,
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2010 Functional characterization of gene regulatory elements(Nadav Ahituv)

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2010 in toto imaging of Drosophila embryonic development using Two Photon Light Sheet Microscopy(Willy Supatto)
- Jun,
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2010 Flowering time regulation mediated by protein arginine methylation(Xiaofeng Cao)
- Jun,
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2010 Evolution of Sex and Sex Chromosomes (tentative)(Jenifer A. Marshall Graves)
- Jun,
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2010 Weird animal genomes and the evolution of mammal Y chromosomes(Jenifer A. Marshall Graves)
- Jun,
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2010 Insect flight: an evolutionary perspective(LS Shashidhara)
- Jun,
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2010 Glycinergic synapse formation in zebrafish(Kazuto Ogino)
- Jun,
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2010 Regulation of EGFR and Notch signaling in Drosophila oogenesis(Trudi Schupbach)
- Jun,
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2010 The mechanics of shape change in the Drosophila embryo(Eric Wieschaus)
- Jun,
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2010 Studies of the colonial volvocalean algae unveiling the origin of male and female--- Discovery of a male-specific gene "OTOKOGI" and female-limited "HIBOTAN" genes --(Hisayoshi Nozaki)
- Jun,
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2010 The Role of Heparan Sulfate Proteoglycans in Drosophila Germline Stem Cell Niche.(Yoshiki Hayashi)
- Jul, 2
2010 Essential roles of PTEN/PI3K signaling in proper retinal network formation(Kiyo Sakagami)
- Jul, 5
2010 Integration of Sty1 MAPK and Gcn2 eIF2 kinase signaling pathways during nutritional stress: The role of translation initiation factor Int6/eIF3e(Katsura Asano)
- Jul, 9
2010 Dynamic and Diverse Plant Genomes(Doreen Ware)
- Jul,
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2010 Role of nuclear pore components in gene regulation(Ritsuko Suyama)
- Jul,
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2010 How do cell-surface molecules specify synaptic-layer targeting in the Drosophila visual system?(Tkashi Suzuki)
- Jul,
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2010 Basement membrane movement remodels tissue boundaries during uterine-vulval attachment in *C. elegans*(Shinji Ihara)
- Aug,
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Evolution of a novel behavior mediated by the lateral line system adapts blind

- 2010 cavefish to life in darkness.(Masato Yoshizawa) (吉澤 匡人)
- Aug,
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2010 Bacterial persistence and spontaneous phenotypic adaptation(Yuichi Wakamoto)
- Aug,
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2010 Evolutionary origin and functional characterization of microRNA-650 in immunoglobulin lambda locus(Sabyasachi Das)
- Aug,
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2010 Impact of the founder effect on the MHC polymorphism in the Mauritius macaque population(Antoine Blancher)
- Sep,
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2010 A novel mode of olfactory receptor expression and identification of a novel G-protein(Yuichiro Oka)
- Sep,
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2010 Identification of disease causalities by exome sequencing and target re-sequencing of the entire HLA region(Kazuyoshi Hosomichi)
- Sep,
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2010 South of the Russian Far East as a hotspot of genetic variation and speciation(Alexey Kryukov)
- Sep,
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2010 Evolutionary patterns of amino acid substitutions in 12 Drosophila genomes: data mining in phylogenetic context(Lev Yampolsky)
- Oct,
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2010 Axils and margins: shaping plant organs by the meristem(Mitsuhiro Aida)
- Oct,
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2010 Cellular and molecular mechanisms of axonal arborisation and synaptogenesis in the zebrafish retinotectal system: From Slit-Robo signalling to the apoptotic pathway(Douglas Campbell)
- Oct,
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2010 Cracking the mystery of nine-ness: mechanisms of centriole formation(Daiju Kitagawa)
- Oct,
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2010 Evolution and regulation of the chloroplast division machinery: Permanent inheritance of endosymbiotic organelles(Shinya Miyagishima)
- Oct,
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2010 Genetic analysis of lipid metabolism using a Drosophila model(Hiroko Sano)
- Oct,
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2010 Genetic analysis of RNA-directed DNA methylation in Arabidopsis thaliana(Tatsuo Kanno)
- Oct,
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2010 Genetics of speciation and adaptation in sticklebacks(Jun Kitano)
- Oct,
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2010 Hierarchical structure of left-right asymmetry: from molecule to brain(Atsushi Tamada)

- Oct,
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2010 In vivo cell biology, a model system of Drosophila eye: Two tales of Rhodopsin transport and pigment granule migration(Akiko Satoh)
- Oct,
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2010 A new link between activity patterns and circuit patterns: Topographic circuit formation by Timing-Directed Mapping in Xenopus visual system(Masateru Hiramoto)
- Oct,
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2010 Aspects of evolution of glycoprotein hormones and steroids in amphioxus(Kaoru Kubokawa)
- Oct,
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2010 Boundary of even skipped; PRE (Polycomb response element) and insulator(Miki Fujioka)
- Oct,
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2010 Assembly and patterning of the vascular network of the zebrafish hindbrain(Misato Fujita)
- Oct,
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2010 Mechanism and Regulation of DNA Replication during the Cell Cycle and in Response to DNA Damage(John Diffley)
- Nov,
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2010 A novel gene-trapping strategy based on the Tol2-transposon system for the mass-production of conditionally disrupted alleles in mouse embryonic stem cells(Yasumasa Ishida)
- Nov,
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2010 Duplication, Deletion, and the Origin of Genetic Novelty(Daniel Hartl)
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2010 Asymmetrical maintenance of DNA methylation between male and female gametes cause parental imprinting in Arabidopsis(Frederic Berger)
- Dec,
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2010 Activation of Tel1 kinase in response to DSB induction: can Tel1 tell us better than ATM?(Katsunori Sumimoto)
- Dec,
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2010 Engineering centromeres to produce haploid plants(Simon Chan)
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2010 The DNA replication checkpoint(David Toczyski)
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2010 Single molecule orientation imaging for studying structural dynamics of proteins in living cells(Tomomi Tani)
- Dec,
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2010 Treslin and the regulation of the initiation of DNA replication in higher eukaryotes(Akiko Kumagai)
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2010 In vitro reconstitution and characterization of the pre-RC assembly in budding yeast using purified, recombinant proteins(Hironori Kawakami)
- Dec,
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2010 Enhancement of odor-avoidance regulated by dopamine signaling in *C. elegans*(Kotaro Kimura)

- Dec,
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2010 Genome-wide association studies of 14 agronomic traits in rice landraces(Han Bin)
- Jan,
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2011 Efficiency of microsatellite DNA for constructing phylogenetic trees and evolution of microsatellite DNA in human and chimpanzee genomes(Naoko Takezaki)
- Jan,
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2011 Species delimitation using genomic sequence data(Ziheng Yang)
- Feb,
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2011 Assembling the segrosome, the nucleoprotein machine for plasmid segregation. (WU, Mei-Yi)
- Feb,
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2011 DNA damage response in Drosophila: cell-based RNAi screen and beyond(Shu Kondo)
- Feb,
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2011 Evolution of gene families: roles of chance and necessity(Masafumi Nozawa)
- Feb,
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2011 Concentric zones, cell migration and neuronal circuits in the Drosophila visual center(Makoto Sato)
- Feb,
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2011 Estimation of the origin of eukaryotic cells by the development of comprehensive phylogenetic analyses.(Satoshi Saruhashi)
- Feb,
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2011 Unravelling the role of inhibitory interneurons in the mammalian spinal motor circuits(Hiroshi Nishimaru)
- Mar,
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2011 Sleep/wakefulness regulation by controlling the activity of orexin neurons using optogenetics(Tomomi Tsunematsu)
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2011 NLK: a modifier of multiple signaling pathways in nervous system development(Tohru Ishitani)
- Mar,
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2011 Physical forces generated by cells and sensed by cells(Toshihiko Ogura)
- Mar,
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2011 Protective role of enhanced glycolysis in primary cells against the senescence effect of oxidative damage. ~ Beyond the Warburg effect~(Hiroshi Kondoh)
- Mar,
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2011 The relationship between chloroplast division and chloroplast DNA replication and segregation(Yukihiro Kabeya)
- Mar,
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2011 Dynamics of pattern formation and emergence of biological functions in Physarum plasmodium(Seiji Takagi)
- Mar,
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2011 Large-Scale Chromatin Reorganization at Pluripotency-Associated Gene Regions(Shin-ichiro Takebayashi)

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2011

Single-molecule analysis of the bacterial flagellar motor(Yoshiyuki Sowa)

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Foreign Visitors

Apr, 8 2010	Masayuki Takahashi	UMR 6204 CNRS & Universite de Nantes, 44322 Nantes cedex3, France
Apr, 9 2010	Sakura Sabri	Samuel Lunenfeld Research Institute, Canada
Apr, 16 2010	Masanori Mishima	Wellcome Trust/Cancer Research UK Gurdon Institute, University of Cambridge
May, 13 2010	Simon Bullock	Division of Cell Biology, MRC-Laboratory of Molecular Biology, Cambridge, UK)
May, 17 2010	Nitish R. Mahapatra	Department of Biotechnology, Indian Institute of Technology Madras, Chennai, India
May, 19 2010	Andreas Dress	CAS-MPG Partner Institute and Key Lab for Computational Biology (PICB)
May, 31 2010	Alain Chédotal	Centre de Recherche, Institut de la Vision Paris, INSERM, France
Jun, 1 2010	Daniel Zilberman	University of California, Berkeley
Jun, 3 2010	Nadav Ahituv	Department of Bioengineering and Therapeutic Sciences and Institute for Human Genetics, University of California, San Francisco, CA 94143, USA
Jun, 7 2010	Willy Supatto	Development and Neurobiology Program, CNRS - Institut Jacques Monod
Jun, 11 2010	Xiaofeng Cao	Institute of Genetics and Developmental Biology, Chinese Academy of Sciences, Beijing
Jun, 18 2010	Jennifer A. Marshall Graves	Research School of Biology, The Australian National University
Jun, 25 2010	LS Shashidhara	Indian Institute of Science Education and Research (IISER), Pune

Jun, 29 2010	Eric Wieschaus	HHMI, Department of Molecular Biology, Princeton University
Jun, 29 2010	Trudi Schupbach	HHMI, Department of Molecular Biology, Princeton University
Jul, 2 2010	Kiyo Sakagami	Jules Stein Eye Institute, UCLA
Jul, 5 2010	Katsura Asano	Division of Biology, Kansas State University
Jul, 9 2010	Doreen Ware	Cold Spring Harbor Laboratory, and United States Department of Agriculture–Agriculture Research Service (USDA-ARS)
Jul, 26 2010	Takashi Suzuki	Max Planck Institute of Neurobiology, Martinsried
Jul, 28 2010	Shinji Ihara	Department of Biology, Duke University
Aug, 4 2010	Masato Yoshizawa	Department of Biology, University of Maryland, College Park, USA
Aug, 19 2010	Sabyasachi Das	Department of Pathology and Laboratory Medicine, Emory Vaccine Center, School of Medicine, Emory University
Aug, 30 2010	Antoine Blancher	Universite Paul Sabatier, Hopital Rangueil Toulouse FRANCE
Sep, 7 2010	Yuichiro Oka	Institute for Genetics, University of Cologne, Germany
Sep, 21 2010	Alexey Kryukov	Institute of Biology and Soil Science, Far East Branch of the Russian Academy of Sciences
Sep, 30 2010	Lev Yampolsky	Department of Biological sciences, East Tennessee State University
Oct, 14 2010	Daiju Kitagawa	Swiss Institute of Experimental Cancer Research, EPFL
Oct, 14 2010	Masateru Hiramoto	The Scripps Research Institute
Oct, 14 2010	Tatsuo Kanno	National University of Ireland Galway
Oct, 18	Miki Fujioka	Dept. of Biochem. and Mol. Biol., Thomas Jefferson University

2010		
Oct, 19 2010	Misato Fujita	Section on Vertebrate Organogenesis, Program in Genomics of Differentiation, NICHD, NIH
Oct, 22 2010	John Diffley	Cancer Research UK London Research Institute, Clare Hall Laboratories
Nov, 11 2010	Daniel Hartl	Department of Organismic & Evolutionary Biology, Harvard University
Nov, 12 2010	Frederic Berger	Temasek Life Sciences Laboratory, Singapore
Dec, 1 2010	Katsunori Sugimoto	Dept. Cell Biology and Molecular Medicine, Univ. of Medicine and Dentistry of New Jersey (UMDNJ), USA
Dec, 6 2010	David Toczyski	Dept of Biochemistry and Biophysics, University of California, San Francisco
Dec, 6 2010	Simon Chan	Department of Plant Biology, UC Davis
Dec, 9 2010	Tomomi Tani	Marine Biological Laboratory, Woods Hole, Massachusetts, USA
Dec, 15 2010	Akiko Kumagai	Division of Biology, California Institute of Technology
Dec, 16 2010	Hironori Kawakami	Cold Spring Harbor Laboratory, USA
Dec, 27 2010	Han Bin	National Center for Gene Research, Chinese Academy of Science, Shanghai
Jan, 28 2011	Ziheng Yang	Department of Genetics, Evolution, and Environment, University College London
Feb, 3 2011	WU, MEI-YI	Faculty of Life Sciences & Manchester Interdisciplinary Biocentre, The University of Manchester
Feb, 9 2011	Masafumi Nozawa	Institute of Molecular Evolutionary Genetics, Pennsylvania State University
Feb, 9 2011	Shu Kondo	Department of Genetics, Harvard Medical School
Mar,		

7 Payal Arya Indian Institute of Science Education and Research (IISER), Pune
2011

Mar, Shin-ichiro
23 Takebayashi Department of Biological Science, Florida State University, USA
2011

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