



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.60  
2009

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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 just 60 years ago 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, evolution and diversity of life.

On the occasion of the 60th anniversary, we would appreciate your continuous support and encouragement to NIG.

We welcome your comments and suggestions on our research activities and endeavors.

Yuji Kohara, Director-General

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## Staff

### Member

#### Director-General

KOHARA, Yuji, D. Sc.

#### Vice-Director

GOJOBORI, Takashi, D. Sc.

KURATA, Nori, D. Ag., professor

### Member

#### 1. Department of Molecular Genetics

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, D. Med., Adjunct Professor

IWAI, Kazuhiro, D. Med., Adjunct Professor

#### 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*

BALLING, Rudi, Ph. D., Adjunct Professor

KURODA, Shinya, D. Med., Adjunct Professor

#### 3. Department of Developmental Genetics

HIROMI, Yasushi, 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

##### *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*  
PATEL, Nipam, Ph. D., Adjunct Professor  
KIMBLE, Judith E, Ph. D., Adjunct Professor

#### **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*  
WU, Chung-I, Ph. D., Adjunct Professor  
HASEGAWA, Masami, D. Sc., Adjunct Professor  
HARTL, Daniel L, Adjunct Professor

#### **5. Department of Integrated Genetics**

SASAKI, Hiroyuki, D. Med., Head of the Department  
*Division of Human Genetics*  
SASAKI, Hiroyuki, D. Med., Professor  
ICHIYANAGI, Kenji, D. Sc., Assistant Professor  
*Division of Agricultural Genetics*  
KAKUTANI, Tetsuji, D. Sc., Professor  
SHIBAHARA, Kei-ichi, M. D., Ph. D., Associate Professor  
NISHIJIMA, Hitoshi, Ph. D., Assistant Professor  
SAZE, Hidetoshi, Ph.D., Assistant Professor  
*Division of Brain Function*  
HIRATA, Tatsumi, D. Med., Associate Professor  
KAWASAKI, Takahiko, D. Sc., Assistant Professor  
*Division of Applied Genetics*  
SHINKAI, Yoichi, D. Med., Adjunct Professor  
KADOWAKI, Takashi, D. Med., Adjunct Professor  
COLOT, Vincent, Adjunct Professor

#### **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  
*Mouse Genomics Resource Laboratory*  
KOIDE, Tsuyoshi, D. Med., Associate 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

TAKAHASHI, Kuniaki, D. Sc., Assistant 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**

SHIMAMOTO, Nobuo, D. Sc., Head of the Center

*Biological Macromolecules Laboratory*

MAESHIMA, Kazuhiro, D. Med., Professor

*Molecular Biomechanism Laboratory*

SHIMAMOTO, Nobuo, D. Sc., Professor

NAKAYAMA, Hideki, D. Eng., 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

SUGAWARA, Hideaki, D. Eng., Professor

IWAYANAGI, Takao, 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

*Neural Morphogenesis Laboratory*

EMOTO, Kazuo, D. Pharm., Associate Professor

*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

KOKUDAI, Masatoshi, Chief of the Research Promotion Section

HIROSE, Hisayuki, Chief of the Management Project Section

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## Advisory Committee

### Advisory committee

#### **Chairman**

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 Medicine, Tohoku 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, Department of Bioscience and Biotechnology, Tokyo Institute of Technology

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

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

SASAKI, Hiroyuki; Professor, Department of Integrated Genetics

SHIMAMOTO, Nobuo; Professor, Structural Biology Center

SHIROISHI, Toshihiko; Professor, Genetic Strains Research Center

YAMAOKA, Fumiaki; Professor, Department of Molecular Genetics

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## Advisory Board

### ADVISORY BOARD

**Members** ( Alphabetical order)

GEHRING, Walter J.; Professor, Biozentrum, University of Basel

HUNT, Tim; Principal Scientist, Cancer Research UK London Research Institute

WATSUKI, Kunio; Director-General, Museum of Nature and Human Activities, Hyogo

SAKAKI, Yoshiyuki; Director, Genomic Sciences Center, RIKEN

SUGIMURA, Takashi; President Emeritus, National Cancer Center

SULSTON, John; Former Director-General, Wellcome Trust Sanger Institute

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

WIESCHAUS, Eric; Professor, Princeton University



## Research Outline

<b>Code</b>	<b>Division/Laboratory</b>	<b>Group name</b>
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-b	Division of Gene Expression	Susumu Hirose
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-a	Division of Human Genetics	Hiroyuki Sasaki
E-b	Division of Agricultural Genetics	Tetsuji Kakutani
E-b	Division of Agricultural Genetics	Keiichi Shibahara
E-c	Division of Brain Function	Tatsumi Hirata
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-b	Molecular Biomechanism Laboratory	Nobuo Shimamoto
H-d	Biomolecular Structure Laboratory	Yasuo Shirakihara
H-e	Gene Network Laboratory	Emiko Suzuki
Ia	Laboratory for DNA Data Analysis	Takashi Gojobori
Ib	Laboratory for Gene-Product Informatics	Yasukazu Nakamura
Ic	Laboratory for Gene Function Research	Yoshio Tateno
Id	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-b	Neural Morphogenesis Laboratory	Emoto Kazuo
J-c	Cell Architecture Laboratory	Kimura Akatsuki
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 . Kong, X., Ball, A.R. Jr., Sonoda, E., Feng, J., Takeda, S., Fukagawa, T., Yen, T.J., and Yokomori K. ( 2008 ) Cohesin Associates with Spindle Poles in a Mitosis-specific Manner and Functions in Spindle Assembly in Vertebrate Cells , **Mol. Biol. Cell** , 20 , 1289 - 1301
- 2 . Iwamoto, M., Mori, C., Kojidani, T., Bunai, F., Hori, T., Fukagawa, T., Hiraoka, Y., and Haraguchi, T. ( 2009 ) Two Distinct Repeat Sequences of Nup98 Nucleoporins Characterize Dual Nuclei in the Binucleated Ciliate Tetrahymena. , **Curr. Biol.** , 19 , 843 - 847
- 3 . Kawashima, T., Bao, Y.C., Minoshima, Y., Nomura, Y., Hatori, T., Hori, T., Fukagawa, T., Fukada, T., Takahashi, N., Nosaka, T., Inoue, M., Sato, T., Kukimoto-Niino, M., Shirouzu, M., Yokoyama, S., and Kitamura, T. ( 2009 ) A Rac GTPase-activating protein, MgcRacGAP, is a nuclear localizing signal-containing nuclear chaperone in the activation of STAT transcription factors. , **Mol. Cell Biol.** , 29 , 1796 - 1813
- 4 . Akagi, T., Fukagawa, T., Kage, Y., To, H., Matsunaga, N., Koyanagi, S., Uchida, A., Fujii, A., Iba, H., Ikemura, T., Aramaki, H., Higuchi, S., and Ohdo, S. ( 2009 ) Role of glucocorticoid receptor in the regulation of cellular sensitivity to irinotecan hydrochloride. , **J. Pharmacol. Sci.** , 109 , 265 - 274
- 5 . Amano, M., Suzuki, A., Hori, T., Backer, C., Okawa, K., Cheeseman, I.M., and Fukagawa, T. ( 2009 ) The CENP-S complex is essential for the stable assembly of outer kinetochore structure. , **J. Cell Biol.** , 186 , 173 - 182
- 6 . Okada, M., Okawa, K., Isobe, T., and Fukagawa, T. ( 2009 ) CENP-H-containing complex facilitates centromere deposition of CENP-A in cooperation with FACT and CHD1. , **Mol. Biol. Cell** , 20 , 3986 - 3995
- 7 . Nishimura, K., Fukagawa, T., Takisawa, H., Kakimoto, T., and Kanemaki, M. ( 2009 ) An auxin-based degron system for the rapid depletion of proteins in nonplant cells. , **Nature Methods** , 6 , 917 - 922
- 8 . Xu, Z., Ogawa, H., Vagnarelli, P., Bergmann, J.H., Hudson, D.F., Ruchaud, S., Fukagawa, T., Earnshaw, W.C., and Samejima, K. ( 2009 ) INCENP-aurora B interactions modulate kinase activity and chromosome passenger complex localization. , **J. Cell Biol.** , 187 , 637 - 653
- 9 . 堀哲也, 深川竜郎 ( 2009 ) セントロメアでのクロマチン構造の形成に必要なヒストンバリエーションとDNA結合, 蛋白質核酸酵素, 54, 1276 - 1283
- 10 . 深川竜郎 ( 2009 ) 染色体分配に必要なキネトコア構造の分子構築, 遺伝, 63, 71 - 78
- 11 . 深川竜郎 ( 2009 ) 染色体分配に必要な動原体の分子構築, 実験医学, 27, 2732 -

## ORAL PRESENTATION

- 1 . Fukagawa, T. Molecular architecture of the vertebrate constitutive centromere associated network University of North Carolina 6/27

## POSTER PRESENTATIONS

- 1 . 堀 哲也、天野美保、鈴木應志、深川竜郎 「キネトコアに局在するDNA結合タンパク質の機能分担」, 第26回染色体ワークショップ, 姫路, 1/26-28
- 2 . 深川竜郎 「核内ダイナミクスの基盤となるセントロメア構造」, 第81回日本遺伝学会 ミニシンポジウム, 松本, 9/16
- 3 . Fukagawa, T. 「Molecular structure of the vertebrate kinetochore」, 第32回日本分子生物学会年会シンポジウム, 横浜, 12/11
- 4 . Fukagawa, T. 「Molecular architecture of the vertebrate constitutive centromere associated network」, 17th International Chromosome conference, Boone, NC, 6/25
- 5 . Fukagawa, T. 「Molecular architecture of the vertebrate constitutive centromere associated network」, 17th International Chromosome conference, Boone, NC, 6/25
- 6 . Fukagawa, T. 「Molecular architecture of the vertebrate constitutive centromere associated network (CCAN)」, Next-Generation Cancer and Genome Biology, Kyoto, 11/2
- 7 . Lampson, M.A., Liu, D., Vleugel, M., Backer, C.B., Hori, T., Fukagawa T., Cheeseman, I.M. 「Regulation of kinetochore-microtubule attachments by opposing kinase and phosphatase activities.」, 第32回日本分子生物学会年会シンポジウム, 横浜, 12/11
- 8 . 堀 哲也、立和名博昭、越阪部晃永、大川克也、小布施力史、胡桃阪仁志、深川竜郎 「Structural feature of the CENP-A nucleosome in the vertebrate centromere.」, 第32回日本分子生物学会年会, 横浜, 12/10
- 9 . 鈴木應志、堀 哲也、深川竜郎 「The inner plate in vertebrate kinetochore is flexible under tension.」, 第32回日本分子生物学会年会, 横浜, 12/9
- 10 . 堀 哲也、立和名博昭、越阪部晃永、大川克也、小布施力史、胡桃阪仁志、深川竜郎 「Structural feature of the CENP-A nucleosome in the vertebrate centromere.」, 第32回日本分子生物学会年会, 横浜, 12/10
- 11 . 商 維昊、堀 哲也、豊田 敦、藤山秋佐夫、深川竜郎 「Characterization of Chicken Centromere DNA.」, 第32回日本分子生物学会年会, 横浜, 12/10
- 12 . Perpelescu, M., 野崎直仁, 小布施力史, 依田欣哉, 深川竜郎 「Active establishment of CENP-A chromatin by remodeling factor Rsf-1/RSF.」, 第32回日本分子生物学会年会, 横浜, 12/10
- 13 . 竹内康造、堀 哲也、立和名博昭、越阪部晃永、胡桃阪仁志、深川竜郎 「セントロメアDNA結合タンパク質CENP-T/CENP-W複合体の生化学的解析.」, 第32回日本分子生物学会年会, 横浜, 12/10
- 14 . 越阪部晃永、野澤竜介、立和名博昭, 小布施力史, 深川竜郎, 胡桃阪仁志 「新規ヒストン結合因子SPTY2D1の機能解析.」, 第32回日本分子生物学会年会, 横浜, 12/11
- 15 . 山本拓弥、宇田川紘司、松村祐紀、横尾岳大, 深川竜郎, 大山隆 「人工イベントDNAにより活性化されたトランスジーンの核内局在: HeLa細胞を用いた解析.」, 第32回日本分子生物学会年会, 横浜, 12/11
- 16 . 宇田川紘司、山本拓弥、棚瀬潤一、深川竜郎, 大山 隆 「人工イベントDNAにより活性化されたトランスジーンの核内局在: マウスES細胞を用いた解析.」, 第32回日本分子生物学会年会, 横浜, 12/11
- 17 . 景山 大、中田勇人、木村 元、古屋美香、荒川 潤、深川竜郎, 大山 隆 「ヒトゲノムDNAにおける物性特異領域の生物学的意義: 動態解析の試み」, 第32回日本分子生物学会年会, 横浜, 12/11
- 18 . 古屋美香、荒川 潤、木村 元、景山 大、堀 哲也、深川竜郎, 大山 隆 「ヒトゲノムの物理的特性とクロマチン構造.」, 第32回日本分子生物学会年会, 横浜, 12/11
- 19 . 北村大志、大淵恵理、小布施力史、田辺秀之、堀 哲也、深川竜郎、原田昌彦 「クロマチン核内配置におけるアクチン関連タンパク質Arp6の機能解析.」, 第32回日本分子生物学会年会, 横浜, 12/11

20. 西村浩平,深川竜郎,柿本辰男,滝澤温彦,鐘巻将人 「植物ホルモン・オーキシン依存的タンパク質分解系を応用した迅速なタンパク質除去法による出芽酵母と動物細胞コンディショナル変異株の作成-オーキシン誘導デグロン法-」, 第32回日本分子生物学会年会, 横浜, 12/12

## EDUCATION

1. 深川竜郎、野々村賢一 核ダイナミクス研究の新展開 第81回日本遺伝学会 ミニシンポジウム 松本 9/16
2. 深川竜郎、原田昌彦 クロマチン・染色体の分子構築と機能制御 遺伝研研究集会 三島 11/12
3. Fukagawa, T., and I.M. Cheeseman Centromere and Kinetochore-microtubule interactions 第32回日本分子生物学会年会シンポジウム 横浜 12/11
4. 深川竜郎、石川冬木 次世代がんゲノム集会 三島 8/13

## PATENT

1. 2009-110449, 真核生物におけるオーキシンを用いたタンパク質発現制御法, 西村浩平、柿本辰男、深川竜郎、滝澤温彦, 国立大学法人大阪大学、大学共同利用機関法人情報・システム研究機

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A. DEPARTMENT OF MOLECULAR GENETICS  
A-c. Molecular Mechanism Laboratory

A. DEPARTMENT OF MOLECULAR GENETICS  
A-c. Molecular Mechanism Laboratory  
Hiroaki Seino

## RESEARCH ACTIVITIES

### POSTER PRESENTATIONS

1 . Seino, H. 「 Ubiquitin-conjugating enzyme Ubc11 regulates DNA-damage checkpoint signaling pathway. 」, The 32th Annual Meeting of The Molecular Biology Society of Japan , Yokohama , 12

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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. 小林 武彦 (2009) 複製、組換え、転写のコラボレーションによる遺伝子増幅，蛋白質、核酸、酵素，54，537 - 542
2. Ganly, A.R.D., Ide, S., Saka, K., and Kobayashi T. (2009) The effect of replication initiation on gene amplification in the rDNA and its relationship to aging. , **Molecular Cell** , 35 , 683 - 693
3. 小林 武彦 (2009) リボソームRNA遺伝子の新しい機能，化学と生物，47，104 - 110

### POSTER PRESENTATIONS

1. 小林 武彦 「 Recovery of rDNA stability contributes to rejuvenation in yeast. 」，第32回日本分子生物学会，横浜市，12
2. Kobayashi, T. 「 The effect of replication initiation on gene amplification in the rDNA and its relationship to aging. 」，International Symposium on chromosome cycle and genome dynamics.，栃木県那須市，11
3. 小林 武彦 「 rDNAの不安定化と細胞老化 」，第20回複製・組換え・修復ワークショップ，滋賀，11
4. 小林 武彦 「 リボソームRNA遺伝子のExtra copyの機能 」，酵母遺伝学フォーラム第42回研究報告会，つくば市，7

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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 . Tanaka, H., Katou, Y., Yagura, M., Saitoh, K., Itoh, T., Araki, H., Bando, M. and Shirahige, K. ( 2009 ) Ctf4 coordinates the progression of helicase and DNA Polymerase  $\alpha$  . **Genes to Cells** , 14 , 807 - 820
- 2 . Komata, M., Bando, M., Araki, H. and Shirahige, K. ( 2009 ) The direct binding of Mrc1, a checkpoint mediator, to Mcm6, a replication helicase, is essential for the replication checkpoint against methyl methanesulfonate-induced stress. , **Mol. Cell. Biol.** , 29 , 5008 - 5019
- 3 . Araki, H. ( 2009 ) Regulatory mechanism of the initiation step of DNA replication by CDK in budding yeast. , **Biochimica et Biophysica Acta** , 1804 , 520 - 523
- 4 . 田中誠司、荒木弘之 ( 2009 ) 真核細胞の細胞周期制御機構と染色体DNA複製 , 遺伝 , 63 , 51 - 58
- 5 . 荒木弘之 ( 2008 ) 真核生物染色体DNAの複製開始を担う複製蛋白質複合体の形成 , 蛋白質核酸酵素 , 54 , 350 - 355

#### POSTER PRESENTATIONS

- 1 . Araki, H., Hirai, K., Li, Y., Tanaka, T., Muramatsu, S., Tanaka, S. 「 CDK-Dependent Assembly of Replication Proteins at the Initiation Step of Chromosomal DNA Replication 」, Annual Meeting of American Society for Biochemistry and Molecular Biology , New Orleans, USA , 4/18~4/22
- 2 . Araki, H., Hirai, K., Li, Y., Tanaka, T., Muramatsu, S., Tanaka, S. 「 CDK-Dependent Assembly of Replication Proteins at the Initiation Step of Chromosomal DNA Replication 」, Chromosome Dynamics and Genome Stability , Villars-sur-Ollons, Switzerland , 5/14~5/16
- 3 . Araki, H., Hirai, K., Li, Y., Tanaka, T., Muramatsu, S., Tanaka, S. 「 CDK-dependent assembly of replication proteins at the initiation step of chromosomal DNA replication 」, Inhibitors of Protein Kinases , Warsaw, Poland , 6/27~7/1
- 4 . 荒木弘之、村松佐知子、平井和之、柳沢好美、田中尚美、田中誠司 「 真核生物における染色体DNA複製開始の制御機構 」, 第82回 日本生化学会大会 , 神戸 , 10/21~10/24
- 5 . Tanaka, S., Araki, H. 「 Multiple regulatory mechanisms of the initiation of DNA replication are important for stable genome maintenance 」, 2009年度 複製・組換え・修復ワークショップ , 彦根 , 11/2
- 6 . Tanaka, S., Araki, H. 「 Multiple regulatory mechanisms for the initiation of DNA replication are important for stable genome maintenance 」, Chromosome Dynamics and Genome Stability , Villars-sur-Ollons, Switzerland , 5/14~5/16



7. 田中誠司、荒木弘之 「 DNA複製開始制御システムとゲノム安定維持 」, 酵母遺伝学フォーラム第42回研究報告会, つくば, 7/28~7/30
8. 田中誠司、荒木弘之 「 Multiple regulatory mechanisms for the initiation of DNA replication are important for stable genome maintenance 」, 関東東海DNA研究会, 強羅, 7/23~7/24
9. 平井和之、荒木弘之 「 染色体DNAの複製開始期に形成されるタンパク質複合体の解析 」, 関東東海DNA研究会, 強羅, 7/23~7/24
10. 矢倉勝、荒木弘之 「 出芽酵母 in vitro DNA複製系の構築に向けた解析 」, 関東東海DNA研究会, 強羅, 7/23~7/24
11. Araki, H., Hirai, K., Li, Y., Tanaka, T., Muramatsu, S., Tanaka, S. 「 CDK-dependent assembly of replication proteins at the initiation step of chromosomal DNA replication 」, Eukaryotic DNA Replication & Genome Maintenance, NY, USA, 9/1~9/5
12. Tanaka, S., Araki, H. 「 Multiple regulatory mechanisms of the initiation of DNA replication are important for stable genome maintenance 」, Eukaryotic DNA Replication & Genome Maintenance, NY, USA, 9/1~9/5
13. Hirai, K., Muramatsu, S., Araki, H. 「 Protein assembly in the initiation stage of DNA replication in budding yeast 」, Eukaryotic DNA Replication & Genome Maintenance, NY, USA, 9/1~9/5
14. Yagura, M., Araki, H. 「 Functions of MCM10 in chromosomal DNA replication in budding yeast 」, Eukaryotic DNA Replication & Genome Maintenance, NY, USA, 9/1~9/5
15. 荒木弘之 「 遺伝学的手法を用いた新規複製因子の分離と解析:真核生物の複製開始機構に迫る 」, 日本遺伝学会第81回大会, 松本, 9/16~9/18
16. 平井和之、村松佐知子、荒木弘之 「 染色体DNAの複製開始期に形成されるタンパク質複合体の解析 」, 日本遺伝学会第81回大会, 松本, 9/16~9/18
17. 矢倉勝、荒木弘之 「 出芽酵母染色体DNA複製におけるMCM10の機能解析 」, 日本遺伝学会第81回大会, 松本, 9/16~9/18
18. 田中誠司、荒木弘之 「 Temporal regulation of origin firing in budding yeast *Saccharomyces cerevisiae*. 」, 第32回日本分子生物学会年会, 横浜, 12/8~12/12
19. 荒木弘之、牧野仁志穂、本間良美、大吉崇文、瓜谷眞裕、丑丸敬史 「 TORによるNog1を介したMcm3安定性の制御 TOR regulates Mcm3 stability through Nog1 in the budding yeast 」, 第32回日本分子生物学会年会, 横浜, 12/8~12/12
20. 平井和之、村松佐知子、荒木弘之 「 Protein assembly in the initiation stage of DNA replication in budding yeast 」, 第32回日本分子生物学会年会, 横浜, 12/8~12/12
21. 矢倉勝、荒木弘之 「 出芽酵母染色体DNA複製におけるMCM10の機能解析 Functions of MCM10 in Chromosomal DNA Replication in Budding Yeast 」, 第32回日本分子生物学会年会, 横浜, 12/8~12/12
22. 荒木弘之、村松佐知子、平井和之、柳沢好美、田中尚美、田中誠司 「 真核生物における染色体DNA複製開始の制御機構 」, 生命活動を制御する高次複合体の構造と機能, 福岡, 12/22~12/23

## BOOK

1. 荒木弘之 (2009) 遺伝学的手法を用いた酵母複製因子の探索—オリジナリティーとプライオリティーの大切さ— 実験医学27 2138 - 2140

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

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

### RESEARCH ACTIVITIES

### PUBLICATIONS Papers

1. Shimizu, H & Namikawa, H. (2009) The body plan of the cnidarian medusa: distinct differences in positional origins of polyp tentacles and medusa tentacles. , **Evolution and Development** , 11 , 619 - 621
2. 清水 裕 (2009) クラゲ形の起源と進化, 岩波 科学 , 79 , 398 - 404

### POSTER PRESENTATIONS

1. Namikawa, H. &, Shimizu, H. 「 The polyp form and the medusa form of cnidaria: why they look so different from each other. 」, The Evolution of Multicellularity: Insights from Hydra and other Basal Metazoans , Tutzing , 9/14
2. Shimizu,H. 「 Regional specification of the digestive tract of hydra 」, The Evolution of Multicellularity: Insights from Hydra and other Basal Metazoans , Tutzing , 9/14

### BOOK

1. 清水 裕 (2009) ヒドラ 共通祖先の体制を垣間みることができる「生きた化石」 細胞工学別冊「バイオリソース&データベース活用術」 181 - 183

### OTHERS

1. 清水裕 , 3 , Editorial Board Member of journal EvoDevo

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## C. DEPARTMENT OF DEVELOPMENTAL GENETICS

### C-a. Division of Developmental Genetics

Yasushi Hiromi

## RESEARCH ACTIVITIES

### PUBLICATIONS

#### Papers

1. Liu, QX., Hiramoto, M., Ueda, H., Gojobori, T., Hiromi, Y., and Hirose, S. (2010) Midline governs axon pathfinding by coordinating expression of two major guidance systems, **Genes & Development**, 23, 1165 - 1170
2. Katsuki, T., Ailani, D., Hiramoto, M., Hiromi, Y. (2009) Intra-axonal Patterning: Intrinsic Compartmentalization of the Axonal Membrane in Drosophila Neurons, **Neuron**, 64, 188 - 199
3. 浅岡美穂 (2009) 幹細胞の局在を決めるのは何か, **Surgery Frontier**, 16, 339 - 342

### ORAL PRESENTATION

1. 勝木健雄 脳を調べて書く 立花ゼミ見聞伝 東京大学本郷キャンパス 12/20
2. 広海 健 器官構築の発生遺伝学～一個の細胞は組織全体のために何が出来るか?～ 講義:分子生物学特論 東京大学・薬学系研究科 2/6

### POSTER PRESENTATIONS

1. Matsuoka, S., Asaoka, M., Hiromi, Y. 「 Gone early maintains undifferentiated state of primordial germ cells and regulates establishment of germ line stem cells in Drosophila ovary. 」, The 7th Stem Cell Reserach Symposium, Tokyo, 5/15-16
2. Asaoka, M., Matsuoka, S., Hiromi, Y. 「 The maintenance of undifferentiated state of stem-cell precursors in Drosophila germline. 」, The 7th Stem Cell Reserach Symposium, Tokyo, 5/15-16
3. Matsuoka, S., Asaoka, M., Hiromi, Y. 「 gone early maintains stem-cell precursors in undifferentiated state to establish adequate number of germline stem cells in Drosophila ovary. 」, The 32nd Annual meeting of the Molecular Biology Society of Japan, 横浜, 12/9
4. 勝木健雄 「 細胞自律的な軸索膜の区画化と細胞内輸送による軸索内パターンニング 」, The 1st Conference on Intracellular Logistics, 沖縄県国頭郡, 11/9
5. 勝木健雄 「 軸索内パターンニングのメカニズムと神経回路形成における意義 」, 頭部形成研究会, 静岡県伊豆市, 11/16
6. Asaoka, M., Matsuoka, S., Hiromi Y. 「 The maintenance of undifferentiated state of stem-cell precursors in Drosophila germline. 」, 42nd Annual Meeting for the Japanese Society of Developmental Biologists, Niigata, 5/28-31
7. Ailani D., Katsuki T., Hiromi Y 「 Differential Trafficking Pathways Regulate the Localization of Axon Guidance Receptors in Drosophila neurons 」, The 9th Japanese

Drosophila Research Conference , Kakegawa , 7/6-8

8 . 湯浅喜博・広海健 「 核内レセプター型転写因子Seven-upはグリア細胞の多様性を生み出すのか? 」, 遺伝情報DECODE・冬のワークショップ , 新潟県湯沢町 , 1/19-21

9 . Katsuki, T., Ailani, D., Joshi, R., Defalco, T., Hiramoto, M., Hiromi Y. 「 Intra-axonal patterning: intrinsic compartmentalization of the axonal membrane in Drosophila neurons 」, The 9th Japanese Drosophila Research Conference , Kakegawa , 7/6-8

10 . Katsuki, T., Hiramoto, M., Hiromi, Y. 「 Intra-axonal Patterning: Intrinsic Compartmentalization of the Axonal Membrane in Drosophila Neurons 」, CDB Symposium 2009 “Shape and Polarity” , Kobe , 3/23-25

11 . Joshi, R., Katsuki, T., DeFalco, T., Hiromi, Y. 「 Molecular addresses: motifs involved in compartment-specific localization of guidance receptors in Drosophila axons 」, The 9th Japanese Drosophila Research Conference , Kakegawa , 7/6-8

12 . Matsuoka, S., Asaoka, M., Hiromi, Y. 「 Gone early maintains undifferentiated state of primordial germ cells and regulates establishment of germline stem cells 」, 42nd Annual Meeting for the Japanese Society of Developmental Biologists , Nigata , 5/28-31

## OTHERS

1 . Y. Hiromi , 3 , Dr. Hiromi served as an editor for Development, Growth and Differentiation.

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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. Takeuchi,S., Yamaki,N., Iwasato,T., Negishi,M., Katoh,H. ( 2009 ) Beta2-chimaerin binds to EphA receptors and regulates cell migration. , **FEBS Lett.** , 583 , 1237 - 1242
2. Singer,P., Yee,B.K., Feldon,J., Iwasato,T., Itohara,S., Grampp,T., Prenosil,G., Benke,D., Mohler,H., Boison,D. ( 2009 ) Altered mnemonic functions and resistance to NMETHYL-d-Aspartate receptor antagonism by forebrain conditional knockout of glycine transporter 1. , **Neuroscience** , 161 , 635 - 654
3. 岩里琢治 ( 2009 ) 中枢神経回路の活動依存的精緻化 , 生物の科学 遺伝 , 63 , 79 - 85

#### 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 生物学持論XI 名古屋大学・理学部 6/2
2. 岩里琢治 哺乳類中枢神経系における回路発達—"樽"と"ミッフィー"の遺伝学— 名古屋大学セミナー 名古屋大学 6/3
3. 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 薬学実習ⅢD 慶應大学・薬学部 9/2
4. 岩里琢治 パレル形成の遺伝学 医学共通講義Ⅱ 東京大学大学院・医学部 11/9
5. 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 埼玉大学 1/22
6. 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 埼玉大学 7/22

#### POSTER PRESENTATIONS

1. 山本亘彦,岩里琢治 「シナプス回路形成と維持-ショウジョウバエから哺乳類まで」, 第32回日本神経科学大会, 名古屋市, 9/16
2. 岩里琢治 「マウス体性感覚系にみる神経回路の生後発達機構」, 頭部形成研究会, 修善寺, 11/16

#### EDUCATION

1. 岩里琢治,山本亘彦 シナプス回路形成と維持-ショウジョウバエから哺乳類まで 第32回日本神経科学大会 名古屋 9/16

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

## RESEARCH ACTIVITIES

### PUBLICATIONS

#### Papers

- 1 . Komisarczuk, A.Z., Kawakami, K., Becker, T.S. ( 2009 ) Cis-regulation and chromosomal rearrangement of the *fgf8* locus after the teleost/tetrapod split. , **Developmental Biology** , 336(2), 301 - 312
- 2 . Kawakami, K. ( 2009 ) The transgenesis and gene and enhancer trap methods in zebrafish by using the Tol2 transposable element. , **Essential zebrafish methods: genetics and genomics** , , 153 - 173
- 3 . Sugiyama, M., Sakaue-Sawano, A., Imura, T., Fukami, K., Kitaguchi, T., Kawakami, K., Okamoto, H., Higashijima, S.-I., Miyawaki, A. ( 2009 ) Illuminating cell-cycle progression in the developing zebrafish embryo , **Proc. Natl. Acad. Sci. USA** , 106 , 20812 - 20817
- 4 . Appelbaum, L., Wang, G.X., Maro, G.S., Mori, R., Tovin, A., Marin, W., Yokogawa, T., Kawakami, K., Smith, S.J., Gothilf, Y., Mignot, E., Mourrain, P. ( 2009 ) Sleep-wake regulation and hypocretin-melatonin interaction in zebrafish , **Proc. Natl. Acad. Sci. USA** , 106 , 21942 - 21947
- 5 . Kim, DJ., Seok, SH., Baek, MW., Lee, HY., Na, YR., Park, SH., Lee, HK., Dutta, NK., Kawakami, K., Park, JH. ( 2009 ) Estrogen-responsive transient expression assay using a brain aromatase-based reporter gene in zebrafish (*Danio rerio*). , **Comparative medicine** , 59(5), 416 - 423
- 6 . Picker, A., Cavodeassi, F., Machate, A., Bernauer, S., Hans, S., Abe, G., Kawakami, K., Wilson, SW., Brand, M. ( 2009 ) Dynamic coupling of pattern formation and morphogenesis in the developing vertebrate retina. , **PLoS biology** , 7(10), 1000214 - 0
- 7 . Suster, ML., Sumiyama, K., Kawakami, K. ( 2009 ) Transposon-mediated BAC transgenesis in zebrafish and mice. , **BMC Genomics** , 10 , 477 - 0
- 8 . Asakawa, K., Kawakami, K. ( 2009 ) The Tol2-mediated Gal4-UAS method for gene and enhancer trapping in zebrafish. , **Methods** , 49(3), 275 - 281
- 9 . Kim, DJ., Seok, SH., Baek, MW., Lee, HY., Na, YR., Park, SH., Lee, HK., Dutta, NK., Kawakami, K., Park, JH. ( 2009 ) Developmental toxicity and brain aromatase induction by high genistein concentrations in zebrafish embryos. , **Toxicology mechanisms and methods** , 19(3), 251 - 256
- 10 . Mejia-Pous, C., Viñuelas, J., Faure, C., Koszela, J., Kawakami, K., Takahashi, Y., Gandrillon, O. ( 2009 ) A combination of transposable elements and magnetic cell sorting provides a very efficient transgenesis system for chicken primary erythroid progenitors. , **BMC biotechnology** , 9 , 81 - 0
- 11 . Kim, DJ., Seok SH., Baek, MW., Lee, HY., Na, YR., Park, SH., Lee, HK., Dutta, NK., Kawakami, K., Park, JH. ( 2009 ) Benomyl induction of brain aromatase and toxic effects

- in the zebrafish embryo. , **Journal of Applied Toxicology** , 29 , 289 - 294
- 12 . Suster, M.L., Kikuta, H., Urasaki, A., Asakawa, K., Kawakami, K. ( 2009 ) Transgenesis in zebrafish with the Tol2 transposon system , **Methods in Molecular Biology** , 561 , 41 - 63
- 13 . Koide, T., Miyasaka, N., Morimoto, K., Asakawa, K., Urasaki, A., Kawakami, K., Yoshihara, Y. ( 2009 ) Olfactory neural circuitry for attraction to amino acids revealed by transposon-mediated gene trap approach in zebrafish. , **Proc. Natl. Acad. Sci. USA** , 106 , 9884 - 9889
- 14 . 浦崎明宏, 浅川和秀, 川上浩一 ( 2009 ) メダカトランスポゾン*Tol2*が開く新しいゼブラフィッシュ研究 , 細胞工学 , 28 , 586 - 591
- 15 . Kitaguchi, T., Kawakami, K., Kawahara, A. ( 2009 ) Transcriptional regulation of a myeloid-lineage specific gene lysozyme C during zebrafish myelopoiesis. , **Mechanisms of Development** , 126 , 314 - 323
- 16 . Urasaki, A., Kawakami, K. ( 2009 ) Analysis of genes and genome by the Tol2-mediated gene and enhancer trap methods , **Methods in Molecular Biology** , 546 , 85 - 102
- 17 . Kikuta, H., Kawakami, K. ( 2009 ) Transient and stable transgenesis using Tol2 transposon vectors. , **Methods in Molecular Biology** , 546 , 69 - 84
- 18 . Esaki, M., Hoshijima, K., Nakamura, N., Munakata, K., Tanaka, M., Ookata, K., Asakawa, K., Kawakami, K., Wang, W., Weinberg, ES., Hirose, S. ( 2009 ) Mechanism of development of ionocytes rich in vacuolar-type H(+)-ATPase in the skin of zebrafish larvae. , **Developmental Biology** , 329 , 116 - 129
- 19 . Suster, M.L., Kania, A., Liao, M., Asakawa, K., Charron, F., Kawakami, K., Drapeau, P. ( 2008 ) A novel conserved *evx1* enhancer links spinal interneuron morphology and cis-regulation from fish to mammals. , **Developmental Biology** , 325 , 422 - 433
- 20 . Faucherre, A., Pujol-Martí, J., Kawakami, K., López-Schier, H. ( 2008 ) Afferent neurons of the zebrafish lateral line are strict selectors of hair-cell orientation. , **PLoS ONE** , 4 , 4477 - 0
- 21 . Chen, YC., Cheng, CH., Chen, GD., Hung, CC., Yang, CH., Hwang, SP., Kawakami, K., Wu, BK., and Huang, CJ. ( 2008 ) Recapitulation of zebrafish *snrca* expression pattern and labeling the habenular complex in transgenic zebrafish using green fluorescent protein reporter gene. , **Developmental Dynamics** , 238 , 746 - 754
- 22 . Santoriello C, Deflorian G, Pezzimenti F, Kawakami K, Lanfrancone L, d'Adda di Fagagna F, and Mione M. ( 2008 ) Expression of H-RASV12 in a zebrafish model of Costello syndrome causes cellular senescence in adult proliferating cells. , **Disease models & mechanisms** , 2 , 56 - 67

## 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ゼブラフィッシュ遺伝学への応用 癌研究会癌研究所セミナー 癌研究会癌研究所 9/7
- 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 九州大学生体防御医学研究所セミナー 九州大学生体防御医学研究所 6/26

## POSTER PRESENTATIONS

- 1 . Yagita, K., Horie, K., Shigeyoshi, Y., Kawakami, K., Takeda, J., Uchiyama, Y., and Shimada, S. 「 Development of Circadian Clock Oscillator During the Mouse ES cell Differentiation in vitro 」, 第50回日本組織細胞化学会総会 , 大津 , 9/26-27
- 2 . Kotani, T., Iemura, S., Natsume, T., Kawakami, K., and Yamashita, M. 「 Mys protein antagonizes Hedgehog signaling through activation of PKA during embryonic development 」, 16th International Society of Developmental Biologists Congress , Edinburgh, Scotland , 9/9-10
- 3 . Picker, A., Cavodeassi, F., Machate, A., Bernauer, S., Hans, S., Abe, G., Kawakami, K., Wilson, S., and Brand, M. 「 Dynamic coupling of pattern formation and morphogenesis in the developing vertebrate retina 」, 16th International Society of Developmental Biologists Congress , Edinburgh, Scotland , 9/9-10



4. Santoriello, C., Deflorian, G., Pezzimenti, F., Kawakami, K., Lanfrancione, L., d'Adda Di Fagagna, F., and Mione, M. 「 Expression of H-RASV12 in a zebrafish model of Costello syndrome causes cellular senescence in adult proliferating cells 」, 16th International Society of Developmental Biologists Congress , Edinburgh, Scotland , 9/9-10
5. Kawakami, K. 「 Genetic methods using the Tol2 transposable element in zebrafish 」, International Symposium on Marine Genomics 2009 , Naha, Okinawa , 12/15-18
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2 . 川上浩一 トランスポゾンに基づくゲノム・遺伝子研究 国立遺伝学研究所研究会 三島 2/26-27

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## OTHERS

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### D-a. Division of Population Genetics

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Naruya Saitou

## RESEARCH ACTIVITIES

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## ORAL PRESENTATION

1. 齋藤 成也 分子進化学 講義 山形大学・医学部 1/22
2. 齋藤 成也 分子進化学 講義 東京大学 6/17,24,7/1,8
3. 齋藤 成也 分子進化学 講義 関西学院大学 8/27,28
4. 齋藤 成也 ゲノム生物学 講義 総合研究大学院大学 11/9, 16
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6. 齋藤成也 文化文明論～DNAから宗教まで～ 行政研修 人事院入間研修所・入間市 8/22
7. 齋藤成也 遺伝子から見た日本列島人のルーツ 小泉信三記念講座 慶応義塾大学 4/28
8. 齋藤成也 ゲノムから読み解く日本人の起源 学術俯瞰講義 東京大学駒場キャンパス 5/1
9. 齋藤成也 ゲノムと進化-人類への道 学術俯瞰講義 東京大学駒場キャンパス 4/22
10. 齋藤成也 人間とウシの古代DNA研究のために インダスプロジェクト、コアメンバー会議 総合地球環境学研究所 10/14
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18. 斎藤成也 「 量的形質と離散形質の研究史 」, 日本遺伝学会第81回大会, 松本市, 9/17
19. 斎藤成也 「 人類の視点から生物をながめる 」, サイエンスアゴラ2009「統合生物学～生物をまとめて調べると見えてくる世界」, 東京, 11/2
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24. 斎藤成也 「 All biology aspire to evolution 」, 2009年度総研大生命科学合同セミナー, 掛川市, 11/5
25. Sumiyama, K., Ruddle, FH. 「 Cis-element evolution of the Dlx genes as an underlying mechanism in toolkit gene co-option in vertebrate appendages 」, The International Darwin Bicentennial Symposium, Sapporo, 9/3
26. 隅山 健太 「 ヒト特異的加速進化保存非コード配列HACNS1で正淘汰進化は起きたのか? 」, 第63回日本人類学会大会, 東京, 10/3-4
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## D. DEPARTMENT OF POPULATION GENETICS

### D-a. Division of Population Genetics

## D. DEPARTMENT OF POPULATION GENETICS

### D-a. Division of Population Genetics

Toshiyuki Takano

## RESEARCH ACTIVITIES

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6. 塚原小百合, 小林啓恵, 河邊 昭, 三浦明日香, 角谷徹仁 「 シロイヌナズナにおいて転移



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8. 高橋 文、高野敏行 「キイロショウジョウバエ集団における胸部三叉の色素沈着パターンの多型と非ランダム交配」, 日本遺伝学会第81回大会, 松本市, 9/16-9/18
9. 田中健太郎、高橋 文、伊藤雅信、高野敏行 「bicoid 遺伝子コピー数の増加に応答する修復機構の遺伝的多様性」, 日本遺伝学会第81回大会, 松本市, 9/16-9/18
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## E. DEPARTMENT OF INTEGRATED GENETICS

### E-a. Division of Human Genetics

## E. DEPARTMENT OF INTEGRATED GENETICS

### E-a. Division of Human Genetics

Hiroyuki Sasaki

## RESEARCH ACTIVITIES

### PUBLICATIONS

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2. 佐々木裕之 哺乳類生殖細胞のエピゲノム制御と小分子RNA 第536回生医研・グローバ

ルCOE理医連携セミナー 九州大学生体防御医学研究所 11/11

3. 一柳健司 エピジェネティクスと進化～種間・種内におけるエピジェノタイプの多様性 GRL バイオサイエンスセミナー 静岡大学理学部 10/26
4. 佐々木裕之 幹細胞の生物学特論「哺乳類生殖細胞のリプログラミング」 奈良先端科学技術大学院大学講義 奈良先端科学技術大学院大学 10/22
5. 佐々木裕之 哺乳類生殖細胞のエピゲノムと機能性小分子RNA 奈良先端科学技術大学院大学セミナー 奈良先端科学技術大学院大学 10/21
6. 佐々木裕之 哺乳類生殖細胞のエピゲノムと機能性小分子RNA 徳島大学疾患酵素学研究センターセミナー 徳島大学疾患酵素学研究センター 7/8
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2. 一柳健司 「 Acquisition of endonuclease specificity preceded the explosive amplification of mammalian L1 retrotransposons 」, 第32回日本分子生物学会年会, 横浜, 12/9-12
3. 新田洋久, 一柳健司, 宮成悠介, 大堀健太, 久保田健夫, 佐々木裕之 「 Genome wide DNA methylation analysis of ICF syndrome 」, 第32回日本分子生物学会年会, 横浜, 12/9-12
4. 李玉鳳, 一柳健司, 北山淳子, 佐々木裕之 「 Locus-specific DNA methylation changes at mouse SINE B1 elements during male germ cell development 」, 第32回日本分子生物学会年会, 横浜, 12/9-12
5. 福田溪, 一柳健司, 北山淳子, 平井啓久, 佐々木裕之 「 Comparison of the genome-wide DNA methylation patterns between human and chimpanzee 」, 第32回日本分子生物学会年会, 横浜, 12/9-12
6. 千葉初音, 平澤竜太郎, 金田正弘, 佐々木裕之 「 De novo DNA methylation independent establishment of genomically imprinting in mouse oocytes 」, 第32回日本分子生物学会年会, 横浜, 12/9-12
7. 鏡味裕, 臼井文武, 中村隼明, 山本耕裕, 大友朝子, 柏木まや, 田上貴寛, 葦澤圭二郎, 松原悠子, 小野珠乙 「 Genetic regulation of avian stem cells and the application for poultry breeding 」, 第32回日本分子生物学会年会, 横浜, 12/9-12
8. 山本耕裕, 渡部聡朗, 保木裕子, 佐渡敬, 佐々木裕之 「 A novel gene knockdown method utilizing the PIWI-piRNA silencing pathway in mouse spermatogenesis. 」, 第32回日本分子生物学会年会, 横浜, 12/9-12
9. 渡部聡朗, 中馬新一郎, 十時泰, 豊田敦, 山本耕裕, 保木裕子, 藤山秋左夫, 柴田龍弘, 中辻憲男, 佐渡敬, 佐々木裕之 「 Zucchini is a mitochondrial protein required for spermatogenesis and piRNA biogenesis in mouse. 」, 第32回日本分子生物学会年会, 横浜, 12/9-12
10. 佐々木裕之 「 The epigenome and functional small RNAs 」, 第32回日本分子生物学会年会, 横浜, 12/9-12
11. 岩船浩孝, 山口祐希, 鈴木智広, 古海弘康, 橋本昌和, 幸田尚, 金田秀貴, 若菜茂晴, 城石俊彦, 佐々木裕之, 石野史敏 「 Analysis on mutant mice exhibiting abnormal methylation in DMR 」, 第32回日本分子生物学会年会, 横浜, 12/9-12
12. 保木裕子, 大畑樹也, 佐々木裕之, 佐渡敬 「 A partial loss of function mutation in the mechanism of X chromosome inactivation 」, 第32回日本分子生物学会年会, 横浜, 12/9-12
13. Sasaki,H. 「 Epigenetics and small RNAs in mammalian germ cells 」, TriRhena Chromatin/Transcription Club Meeting, Friburg,Germany, 5/12
14. Sasaki,H. 「 The Epigenome and Small RNA Repertoire in Mammalian Germ Cells 」, EMBO Conference Series on Chromatin and Epigenetics, Heidelberg,Germany, 5/13-17
15. Sasaki,H. 「 Genomic imprinting,DNA methylation and small RNAs in mammalian

- germ cells」, Gordon Research Conferences "Epigenetics" The Role of the Environment and Epigenetic Mechanisms in Behavior, Health, and Disease, Holderness, NH, USA, 8/9-14
16. Sasaki, H. 「Imprinting, DNA methylation and small RNA in germ cells.」, Mouse Genetics & Genomics: Development & Disease, Hinxton, UK, 9/2-6
17. 新田洋久, 一柳健司, 宮成悠介, 大堀健太, 久保田健夫, 佐々木裕之 「ICF症候群のゲノムワイドDNAメチル化解析」, 日本人類遺伝学会第54回大会, 東京, 9/23-26
18. Miyanari, Y. 「Profiling of DNA methylation during spermatogenesis」, Keystone Symposium, Keystone, USA, 1/5-9
19. 佐々木裕之 「マウス生殖系列におけるインプリンティング、DNAメチル化と小分子RNA」, 文部科学省・科学研究費補助金・特定領域研究「生殖系列の世代サイクルとエピゲノムネットワーク」第2回公開シンポジウム, 東京, 11/26-27
20. 佐々木裕之 「哺乳類生殖細胞のエピジェネティクスと小分子RNA」, 第7回RCGMフロンティアシンポジウム『未来医療のためのゲノム医学研究』, 埼玉, 11/3
21. 山口裕子, 鳥巢弘道, 中林一彦, 田辺香子, 田山千春, 菅原直子, 佐々木裕之, 森崇英, 北折珠央, 杉浦真弓, 秦健一郎 「異常妊娠のエピゲノム解析」, 日本人類遺伝学会第54回大会, 東京, 9/23-26
22. 一柳健司, 福田溪, 北山淳子, 平井啓久, 佐々木裕之 「ヒトとチンパンジーのDNAメチル化プロファイルの比較」, 日本人類遺伝学会第54回大会, 東京, 9/23-26
23. 佐々木裕之 「ゲノムインプリンティングのエピゲノム機構に関する研究」, 日本人類遺伝学会第54回大会, 東京, 9/23-26
24. 佐々木裕之 「次世代シーケンサーによる機能性小分子RNAの網羅的解析」, 日本遺伝学会第81回大会, 長野, 9/16-18
25. 一柳健司, 北山淳子, 李王鳳, 佐々木裕之 「生殖細胞形成過程におけるマウスB1 SINEのDNAメチル化ダイナミクス」, 日本遺伝学会第81回大会, 長野, 9/16-18
26. 一柳健司, 中島亮, 梶川正樹, 岡田典弘 「TANT法によるLINE転移機構の解析: バイオインフォマティクスから見てきたLINE転移における宿主タンパク質の関与」, 日本遺伝学会第81回大会, 長野, 9/16-18
27. 尼川裕子, 保木裕子, 佐々木裕之, 佐渡敬 「マウスのメス生殖細胞におけるXist発現消失時期の遅延はX染色体再活性化を遅らせる」, 日本遺伝学会第81回大会, 長野, 9/16-18
28. 保木裕子, 大畑樹也, 佐々木裕之, 佐渡敬 「X染色体不活性化機構の部分的機能欠損変異」, 日本遺伝学会第81回大会, 長野, 9/16-18
29. 渡部聡朗 「Zucchini遺伝子KOマウスを用いた、piRNAとDNAメチル化の解析」, 特定領域研究『生殖系列の世代サイクルとエピゲノムネットワーク』生殖サイクル若手勉強会2009, 静岡, 8/27-29
30. Sasaki, H. 「The epigenome and small RNA repertoire in mammalian germ cells」, The 24th Naito Conference on Nuclear Dynamics and RNA[II], 札幌, 6/23-26
31. Amakawa, Y., Hoki, Y., Sasaki, H., Sado, T. 「The impact of Xist RNA on X chromosome reactivation in PGCs」, The 24th Naito Conference on Nuclear Dynamics and RNA[II], 札幌, 6/23-26
32. Ichiyana, K., Kitayama, J., Sasaki, H. 「Locus-specific hyper- and hypo-methylation of mouse B1 SINE in male germ cells」, The 24th Naito Conference on Nuclear Dynamics and RNA[II], 札幌, 6/23-26
33. Sado, T. 「Toward the understanding of molecular events underlying X-inactivation」, The 24th Naito Conference on Nuclear Dynamics and RNA[II], 札幌, 6/23-26
34. 佐々木裕之 「私の研究人生」, 特定領域研究『生殖系列の世代サイクルとエピゲノムネットワーク』生殖サイクル若手勉強会2009, 静岡, 8/27-29
35. 渡部聡朗, 三ツ矢幸造, 宮川さとみ, 中馬新一郎, 富澤信一, 十時泰, 豊田敦, 山本耕裕, 保木裕子, 佐渡敬, 野瀬俊明, 仲野徹, 佐々木裕之 「piRNAによるインプリント遺伝子Rasgrf1のDNAメチル化制御」, 第11回RNAミーティング(第11回日本RNA学会年会), 新潟, 7/27-29
36. 佐々木裕之 「生殖細胞のエピゲノムと機能性RNA」, 第33回阿蘇シンポジウム"生命科学のフロントランナー", 熊本, 7/31, 8/1
37. 佐々木裕之 「発生・成長におけるエピジェネティクス」, 第13回小児分子内分泌研究会, 北海道, 7/4-5
38. 佐々木裕之 「哺乳類生殖細胞のエピゲノムと機能性小分子RNA」, 文部科学省科学研究費補助金特定領域研究「遺伝情報発現におけるDECODEシステムの解明」, 新潟, 1/19-

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39. 佐々木裕之「エピジェネティクスが拓く生命科学」, 2009 Millipore Asia BioForum 幹細胞およびエピジェネティクス研究の最前線, 東京, 6/15

40. 尼川裕子, 保木裕子, 佐々木裕之, 佐渡敬「恒常活性型XistアレルがX染色体再活性化に与える影響」, 第3回日本エピジェネティクス研究会年会, 東京, 5/22-23

41. 一柳健司, 北山淳子, 佐々木裕之「マウス生殖細胞および体細胞におけるB1 SINEのDNAメチル化プロファイル」, 第3回日本エピジェネティクス研究会年会, 東京, 5/22-23

42. 千葉初音, 平澤竜太郎, 金田正弘, 佐渡敬, 佐々木裕之「X染色体のインプリンティングには新規DNAメチル化は不要である」, 第3回日本エピジェネティクス研究会年会, 東京, 5/22-23

43. Ichiyanagi,K.,Kitayama,J.,and Sasaki,H.「Locus-specific hyper- and hypo-methylation of mouse B1 elements in male germ cells.」, 2nd International Conference and Workshop "Genomic Impact of Eukaryotic Transposable Elements", Pacific Grove, USA, 2/6-10

## EDUCATION

1. Sasaki,H. From Imprinting to the Epigenome in 25 years CellCentric Conference 2009 UK 9/4-6

2. Sasaki,H. Nuclear Dynamics and RNA[II] The 24th Naito Conference 札幌 6/23-26

3. 佐々木裕之 千里ライフサイエンスセミナー エピジェネティクス:ゲノムを管理し活用する戦略 大阪 4/17

## BOOK

1. Kaneda,M., and Sasaki,H. (2009) Genomic imprinting and X chromosome inactivation in germ cell development **Genetic and Epigenetic Control of Mammalian Germ Cell Development and Function** 37 - 56

2. 佐々木裕之 (2009) 4章. ゲノムの高度活用戦略—エピジェネティクス 現代生物学入門1ゲノム科学の基礎 153 - 200

## OTHERS

1. 佐々木裕之, 2, 日本人類遺伝学会賞「ゲノムインプリンティングのエピゲノム機構に関する研究」

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## E. DEPARTMENT OF INTEGRATED GENETICS

### E-b. Division of Agricultural Genetics

## E. DEPARTMENT OF INTEGRATED GENETICS

### E-b. Division of Agricultural Genetics

Keiichi Shibahara

## RESEARCH ACTIVITIES

### PUBLICATIONS

#### Papers

- 1 . Ono, T., Nishijima, H., Adachi, N., Iizumi, S., Koyama, H., Shibahara, K-i. ( 2009 ) Generation of tetracycline-inducible conditional gene knockout cells in a human Nalm-6 cell line. , **J. of Biotechnology** , 141 , 1 - 7
- 2 . Nishijima, H., Adachi, N., Takami, Y., Nakayama, T., and Shibahara, K-i. ( 2009 ) Improved applications of the tetracycline-regulated gene depletion. , **BioScience Trends** , 3 , 161 - 167
- 3 . Takata, H., Nishijima, H., Ogura, S-i., Sakaguchi, T., Bubulya, P.A., Mochiduki, T., and Shibahara, K-i.. ( 2009 ) Proteome Analysis of Human Nuclear Insoluble Fractions. , **Genes Cells** , 14 , 975 - 990

### POSTER PRESENTATIONS

- 1 . Sharma, A., Takata, H., Shibahara, K., Bubulya, A., Bubulya, P. 「 Son is Essential for Nuclear Speckle Organization and Cell Cycle Progression. 」, ASCB 49th annual meeting , San Diego , 12/5-12/9
- 2 . 高田英昭, 西嶋仁, 小倉俊一郎, 望月徹, 柴原慶一 「 核不溶性画分のプロテオーム解析 」, BMB2008 , 神戸 , 12/11
- 3 . 宇和田淳介, 田中新菜, 山口祐太郎, 柴原慶一, 中尾光善, 斉藤寿仁 「 Identification and Characterization of SUMO-Interacting Motif in the p150 Subunit of Chromatin Assembly Factor 1 in the Context of DNA Replication 」, 日本エピジェネティクス研究会 , , 5/22-5/23
- 4 . 宇和田淳介, 田中新菜, 山口祐太郎, 柴原慶一, 中尾光善, 斉藤寿仁 「 Identification and Characterization of SUMO-Interacting Motif in the p150 Subunit of Chromatin Assembly Factor 1 in the Context of DNA Replication 」, 日本分子生物学会春季シンポジウム , 宮崎 , 5/11-5/12
- 5 . 柴原慶一 「 ヒト疾患原因遺伝子のジーンターゲティング細胞株の作製とその応用 」, 都市エリア事業外部評価会議 , 静岡 , 1/20

### PATENT

- 1 . 2009-110353 , 組換えタンパク質の大量生産に利用可能な細胞株の作製と応用 , 柴原慶一、西嶋仁、坂口武久 , 大学共同利用機関法人情報・システム研究機構

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## E. DEPARTMENT OF INTEGRATED GENETICS

### E-b. Division of Agricultural Genetics

Tetsuji Kakutani

## RESEARCH ACTIVITIES

### PUBLICATIONS

#### Papers

1. Miura A, Nakamura M, Inagaki S, Kobayashi A, Saze H, Kakutani T (2009) An Arabidopsis jmjC-domain protein protects transcribed genes from DNA methylation at CHG sites, **EMBO Journal**, 28, 1078 - 1086
2. Schoft V, Chumak N, Mosiolek M, Slusarz L, Komnenovic V, Brownfield L, Twell D, Kakutani T, Tamaru H (2009) Induction of RNA-directed DNA methylation upon decondensation of constitutive heterochromatin, **EMBO Reports**, 10, 15 - 21
3. Tsukahara S, Kobayashi A, Kawabe A, Mathieu O, Miura A, Kakutani T (2009) Bursts of retrotransposition reproduced in Arabidopsis, **Nature**, 461, 423 - 426

### ORAL PRESENTATION

1. 角谷徹仁 集中講義 福井大学 9/9-9/10
2. 角谷徹仁 集中講義 東京大学理学部 10/1-10/2

### POSTER PRESENTATIONS

1. Kakutani T 「Genetics of DNA methylation in genes and transposons in Arabidopsis thaliana」, EMBL conference on Chromatin and Epigenetics, Heidelberg, Germany, 5/13-5/17
2. Kakutani T 「Genetics of DNA methylation in Arabidopsis」, 発生生物学会シンポジウム, 新潟, 5/29-5/31
3. Kakutani T 「Genetics of DNA methylation in Arabidopsis thaliana」, The 24th Naito Conference on Nuclear Dynamics and RNA, 札幌, 6/23-6/26
4. Kakutani T 「Genetics of DNA Methylation in Genes and Transposons in Arabidopsis」, Gordon Research Conference on Epigenetics, Holderness, NH, USA, 8/9-8/14
5. 塚原小百合、小林啓恵、河辺昭、三浦明日香、角谷徹仁 「シロイヌナズナにおいて転移するレトロトランスポゾンの制御機構」, 日本遺伝学会第81回大会, 松本, 9/16-9/18
6. 小林啓恵、塚原小百合、河辺昭、三浦明日香、角谷徹仁 「アラビドプシス属における爆発的レトロトランスポジションの再現」, 日本遺伝学会第81回大会, 松本, 9/16-9/18
7. 付ゆう、小林啓恵、角谷徹仁 「シロイヌナズナの転移するトランスポゾンVANDAL21のエピジェネティックな制御」, 日本遺伝学会第81回大会, 松本, 9/16-9/18
8. 佐々木卓、小林啓恵、佐瀬英俊、角谷徹仁 「シロイヌナズナのddm1変異体自殖系統におけるDNAメチル化制御の解析」, 日本遺伝学会第81回大会, 松本, 9/16-9/18
9. 稲垣宗一、三浦明日香、中村みゆき、小林啓恵、佐瀬英俊、角谷徹仁 「シロイヌナズナの jumonjiドメイン蛋白質が転写されている遺伝子のDNAメチル化を防ぐ」, 日本遺伝学会第81



回大会，松本，9/16-9/18

10. Kakutani T, Saze H, Miura A, Inagaki S, Kobayashi A, Nakamura M, Tsukahara S, Fu Y 「Genetics of DNA methylation in genes and transposons in Arabidopsis」, 第32回分子生物学学会年会シンポジウムEmerging power of epigenomics in life science, 横浜, 12/10

## OTHERS

1. 稲垣宗一、三浦明日香、中村みゆき、小林啓恵、佐瀬英俊、角谷徹仁, 2, 第82回遺伝学会Best Paper賞
2. 角谷徹仁, 1, 日本エピジェネティクス研究会幹事
3. 角谷徹仁, 3, Associate Editor, PLoS Genetics
4. 角谷徹仁, 3, Editorial Board member, Epigenetics & 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. Nakadate, Y., Uchida, K., Shikata, K., Yoshimura, S., Azuma, M., Hirata, T., Konishi, H., Kiyama, H., and Tachibana, T. (2008) The formation of argpyrimidine, a methylglyoxal-arginine adduct, in the nucleus of neural cells. , **Biochem. Biophys. Res. Comm.** , 378 , 209 - 212

#### POSTER PRESENTATIONS

1. 川崎能彦,平田たつみ 「嗅球軸索投射におけるNrp2のSema3Aシグナル阻害作用」, 第42回日本発生生物学会年会, 新潟, 5/29-31
2. Suzuki, I.,Gojobori, T.,Hirata, T 「 Emergence of the layer structure in the mammalian neocortex associated with a change in the stem cells dynamics 」, Symposium on Evolution , Cold Spring Harbor, USA , 5/27
3. Suzuki, I.,Gojobori, T.,Hirata, T 「 Evolutionary Origin of Mammalian Specific Features of the Neocortex 」, Albany 2009: Conversation 16 , Albany, NY, USA , 9/17
4. 鈴木郁夫,五條堀孝,平田たつみ 「哺乳類大脳皮質層構造の進化的起原と神経幹細胞ダイナミクスの変更」, 第32回日本神経科学学会年会, 名古屋, 9/17
5. Kawasaki, T.,Hirata, T 「 Novel function of Nrp2 as an inhibitor of Sema3A signaling in the projection of olfactory bulb axons 」, Construction and reconstruction of the brain , Awaji , 10/8-10
6. Suzuki, I.,Gojobori, T.,Hirata, T 「 Evolutionary emergence of layer structure in the mammalian neocortex associated with a change in neural stem cell dynamics 」, Construction and Reconstruction of the Brain , Awaji , 10/7
7. 川崎能彦 「嗅球軸索投射におけるセマフォリンシグナルの機能」, 日本発生生物学会秋季シンポジウム, 三島, 11/27-29

#### 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, 科学技術振興機構 男女共同参画アドバイザーーコミッティー
3. 平田たつみ, 1, 日本神経科学学会男女共同参画推進委員長

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

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

### RESEARCH ACTIVITIES

### PUBLICATIONS

#### Papers

- 1 . Suzuki D., Yamada A., Amano T., Yasuhara R., Kimura, A., Sakahara, M., Tsumaki, N., Takeda, S., Tamura, M., Nakamura, M., Wada, N., Nohno, T., Shiroishi, T., Aiba, A. and Kamijo, R. ( 2009 ) Essential mesenchymal role of small GTPase Rac1 in interdigital programmed cell death during limb development. , **Dev. Biol.** , 335 , 396 - 406
- 2 . The disruption of Sox21-mediated hair shaft cuticle differentiation causes cyclic alopecia in mice. ( 2009 ) Kiso, M., Tanaka, S., Saba, R., Matsuda, S., Shimizu, A., Ohyama, M., Okano, H.J., Shiroishi, T., Okano, H. and Saga, Y. , **Proc. Natl. Acad. Sci. USA** , 106 , 9292 - 9297
- 3 . Moriwaki, K., Miyashita, N., Mita, A., Gotoh, H., Tsuchiya, K., Kato, H., Mekada, K., Noro, C., Oota, S., Yoshiki, A., Obata, Y., Yonekawa, H. and Shiroishi, T. ( 2009 ) Unique inbred strain MSM/Ms established from the Japanese wild mouse. , **Exp. Anim.** , 58 , 123 - 134
- 4 . Fujisawa, H., Horiuchi, Y., Harushima, Y., Takada, T., Eguchi, S., Mochizuki, T., Sakaguchi, T., Shiroishi, T. and Kurata, N. ( 2009 ) SNEP: Simultaneous detection of nucleotide and expression polymorphisms using Affymetrix GeneChip. , **BMC Bioinformatics.** , 10 , 131 - 0
- 5 . Sagai, T., Amano, T., Tamura, M., Mizushina, Y., Sumiyama, K., and Shiroishi, T. ( 2008 ) A cluster of three long-range enhancers directs regional Shh expression in the epithelial linings , **Development** , in press , 0 - 0

### POSTER PRESENTATIONS

- 1 . Amano, T., Sagai, T., Tanabe, H. and Shiroishi, T. 「 Long-range enhancer-promoter interaction via chromosomal dynamics at the Shh locus 」, 23th INTERNATIONAL MOUSE GENOME CONFERENCE 2009 , La Jolla, San Diego, USA , 11/1-11/4
- 2 . Tamura, M., Hosoya, M., Amano, T., Tanaka, S., Kato, Y., Sagai, T. and Shiroishi, T. 「 A mouse mutation Rim4 with duplication of a 7Mb segment of chromosome 8 is model of Partial trisomy 4q-ter syndrome that exhibits congenital malformation 」, 23th INTERNATIONAL MOUSE GENOME CONFERENCE 2009 , La Jolla, San Diego, USA , 11/1-11/4
- 3 . Takada, T., Mita, A., Ebata, T., Shin-i, T., Toyoda, A., Fujiyama, A., Kohara, Y., Obata, Y., Moriwaki, K., Yonekawa, H. and Shiroishi, T. 「 Genetic dissection of age-associated phenotypes using intersubspecific consomic strains. 」, 23th INTERNATIONAL MOUSE GENOME CONFERENCE 2009 , La Jolla, San Diego, USA , 11/1-11/4
- 4 . Takada, T. 「 Making a database to link mouse genome diversity and phenotype 」,

International Phenome Integration Meeting RIKEN/InterPhenome/CASIMIR , Shiga, Japan , 7/12-7/13

5. 天野孝紀, 城石俊彦 「 染色体ダイナミクスを介したShh遺伝子の動的発現制御 」, 日本遺伝学会第81回大会ワークショップ「核ダイナミクス研究の新展開」2009, 松本, 9/16-9/18

6. 天野孝紀 「 Long-rangeエンハンサーとShh遺伝子領域の染色体ダイナミクス 」, 東京大学先端科学技術研究センターセミナー, 東京, 5/8

7. Oka, A. and Shiroishi, T. 「 Meiotic cell-cycle arrest serves as reproductive barrier in mouse speciation 」, 42nd Annual Meeting for the Japanese Society of Developmental Biologists, Symposium-2, Niigata, 5/28-5/31

8. 田村勝, 小見山博光, 加藤依子, 城石俊彦 「 GASDERMIN B (GSDMB) の組織および癌特異的発現は、5'上流に挿入されたレトロトランスポゾンにより制御される 」, 日本遺伝学会第81回大会, 松本, 9/16-9/18

9. 田村勝 「 bHLH型転写因子Hand2のGene dose effectによるマウス形態異常とヒト先天性異常 」, 第23回モロシヌス研究会, 滋賀, 7/11-7/12

10. 田中成和, 田村勝, 加藤依子, 城石俊彦 「 Mutation of Gsdma3 induces spontaneous squamous cell carcinoma development 」, 日本分子生物学会第32回大会, 横浜, 12/9-12/12

11. 高田豊行 「 日本産野生マウス由来系統の遺伝的多様性を基盤とした機能ゲノム学 」, かずさDNA研究所ワークショップ「遺伝的多様性に基づく有用遺伝子座の探索」, 千葉, 3/25

12. 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を用いたエネルギー代謝多様性の遺伝解析 」, 日本遺伝学会第81回大会, 松本, 9/16-9/18

13. 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を用いた多因子肥満症の遺伝解析 」, 第56回日本実験動物学会総会, 大宮, 9/14-9/16

14. 高田豊行, 江端俊伸, 小原雄治, 城石俊彦 「 NIG Mouse Functional Genomics Database 」, 文科省統合データベースプロジェクト「データベースが拓くこれからのライフサイエンス」, 東京, 6/12

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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 . Kawashima H., Hirakawa J., Tobisawa Y., Fukuda M.,and Saga Y ( 2009 ) Conditional gene targeting in mouse high endothelial venules. , **J Immunol** , 182 , 5461 - 5468
- 2 . Kiso M., Tanaka S., Saba R., Matsuda S., Shimizu A., Ohyama M., Okano HJ., Shiroishi T., Okano H.,and Saga Y. ( 2009 ) he disruption of Sox21-mediated hair shaft cuticle differentiation causes cyclic alopecia in mice. , **Circ Res.** , 106 , 9292 - 9297
- 3 . Ukita K., Hirahara S., Oshima N., Imuta Y., Yoshimoto A., Jang CW., Oginuma M., Saga Y., Behringer RR., Kondoh H., and Sasaki H. ( 2009 ) Wnt signaling maintains the notochord fate for progenitor cells and supports the posterior extension of the notochord. , **Mech Dev** , 126 , 791 - 803
- 4 . Sada A., Suzuki A., Suzuki H., Saga Y. ( 2009 ) The RNA-binding protein NANOS2 is required to maintain murine spermatogonial stem cells. , **Science** , 325 , 1394 - 1398
- 5 . Suzuki H., Sada A., Yoshida S.,and Saga Y. ( 2009 ) The heterogeneity of spermatogonia is revealed by their topology and expression of marker proteins including the germ cell-specific proteins Nanos2 and Nanos3. , **Dev. Biol.** , 336 , 222 - 231
- 6 . Yamaji M., Tanaka T., Shigeta M., Chuma S., Saga Y.,and Saitou M. ( 2009 ) Functional reconstruction of Nanos3 expression in the germ cell lineage by a novel transgenic reporter reveals distinct subcellular localizations of Nanos3. , **Reproduction.** , 0 - 0

### POSTER PRESENTATIONS

- 1 . Nobuo Sasaki.,Makoto Kiso.,and Yumiko Saga. 「 Repression of the Notch signaling activity via Mesp2 is essential for somitogenesis 」, 16th International Society of Developmental Biologists Congress 2009 , Edinburgh , 9/6-10
- 2 . 相賀 裕美子.,荻沼政之 「 A translation mechanism of the segmentation clock for periodic somite formation 」, 第32回 日本分子生物学会 , 横浜市 , 12/9~12
- 3 . Stanley-Troy Artap,Kylie Lopes Floro,Yumiko Saga 「 Cited2 transactibates Nodal expression in the left lateral plate mesoderm through interaction with FoxH1 」, 16th International Society of Developmental Biologists Congress 2009 , Edinburgh , 9/6-10
- 4 . Aiko Sada.,Atsushi Suzuki.,Hitomi Suzuki.,and Yumiko Saga. 「 Nanos2 is an intrinsic regulator for maintaining an undifferentiated state of spermatogonial stem cells 」, 16th International Society of Developmental Biologists Congress 2009 , Edinburgh , 9/6-10
- 5 . Rie Saba.,Atsushi Suzuki.,Hitomi Suzuki.,Aiko Sada.,and Yumiko Saga. 「 Nanos2 regulates the transcriptome in the embryonic male germ cells 」, 16th International Society

of Developmental Biologists Congress 2009 , Edinburgh , 9/6-10

- 6 . Yumiko Saga 「マウスの生殖細胞の性分化制御機構」, 第82回日本生化学会大会シンポジウム, 神戸ポートピアホテル, 10/21
- 7 . 浅井理恵子, 栗原由紀子, 佐藤崇裕, 河村悠美子, 小久保博樹, 相賀裕美子, 宮川-富田幸子, 栗原裕基 「Endothelin type-A receptor expression defines a distinct subdomain within the first heart field contributing to chamber myocardium」, 第32回 日本分子生物学会, 横浜市, 12/9-12
- 8 . 小山敏尚, 張ヶ谷健一, 佐々木伸雄, 岡村佳明, 相賀裕美子, 穂積勝人, 菅波晃子, 田村裕, 坂本玲子, 佐藤充治, 吉田進昭, and 北川元生. 「Mastermind-1/Mastermind-2 are essential components of Notch signaling pathway」, 第32回 日本分子生物学会, 横浜市, 12/9-12
- 9 . 小山敏尚, 張ヶ谷健一, 佐々木伸雄, 岡村佳明, 相賀裕美子, 穂積勝人, 菅波晃子, 田村裕, 坂本玲子, 佐藤充治, 吉田進昭, 北川元生. 「Mastermind-1/Mastermind-2 are essential components of Notch signaling pathway」, 第32回 日本分子生物学会, 横浜市, 12/9-12
- 10 . 松尾萌, 相賀裕美子, 武田洋幸, 越田澄人 「Functional analyses of Ktu, a cytoplasmic protein required in motile ciliogenesis 運動性繊毛形成に関わるマウスKtuタンパクの機能解析」, 第32回 日本分子生物学会, 横浜市, 12/9-12
- 11 . 高橋雄, 安彦行人, 相賀裕美子, 菅野純 「Segmentation and rostro-caudal patterning of somites is not essential for vertebral body segmentation」, 第32回 日本分子生物学会, 横浜市, 12/9-12
- 12 . 高橋潤, 大林享子, 荻沼正之, 相賀裕美子, 高田慎治 「Ripply genes are required for the proper rostro-caudal patterning through degradation of Tbx6 protein during somitogenesis」, 第32回 日本分子生物学会, 横浜市, 12/9-12
- 13 . 佐々木伸雄, 相賀裕美子 「Functional analysis of the degradation mechanism of Mastermind via Mesp2 to repress the activation of the Notch signaling pathway」, 第32回 日本分子生物学会, 横浜市, 12/9-12
- 14 . 山路剛史, 田中敬, 繁田麻葉, 中馬新一郎, 相賀裕美子, 斎藤通紀 「Functional reconstruction of Nanos3 expression in the germ cell lineage by a novel transgenic reporter identifies distinct subcellular localizations of Nanos3」, 第32回 日本分子生物学会, 横浜市, 12/9-12
- 15 . 小久保博樹, 相賀裕美子 「Hesr functions in vascular remodeling process」, 第32回 日本分子生物学会, 横浜市, 12/9-12
- 16 . 坂部正英, 小久保博樹, 中島祐司, 相賀裕美子 「Ectopic retinoic acid signaling induces transposition of great arteries(TGA) via suppressing Tbx2 expression during outflow cushion formation」, 第32回 日本分子生物学会, 横浜市, 12/9-12
- 17 . 佐波理恵, 鈴木敦, 鈴木仁美, 佐田亜衣子, 相賀裕美子 「Nanos2 regulates the transcriptome in the embryonic male germ cells Nanos2によるマウス胎仔期の雄性生殖細胞トランスクリプトーム制御機構」, 第32回 日本分子生物学会, 横浜市, 12/9-12
- 18 . Aiko Sada, Atsushi Suzuki, Hitomi Suzuki, Yumiko Saga 「Nanos2 maintains undifferentiated state of spermatogonial stem cells」, 第42回 発生生物学会, 新潟市, 5/29-5/31
- 19 . Jun Takahashi, Akiko Ohbayashi, Yumiko Saga, Shinji Takada 「The function of Ripply and Ripply2 in the somite formation」, 第42回 発生生物学会, 新潟市, 5/28-5/31
- 20 . Yusuke Okubo, Yumiko Saga 「The coupling mechanism to generate synchronized oscillation in mouse somitogenesis」, 第42回 発生生物学会, 新潟市, 5/
- 21 . Atsushi Suzuki, Rie Saba, Yumiko Saga 「Nanos2 promotes sexual differentiation of male germ cells」, Keystone symposium, Santa Fe, 2/1-6

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

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Tsuyoshi Koide

## RESEARCH ACTIVITIES

### PUBLICATIONS

#### Papers

1. Umemori, J., Nishi, A., Lionikas, A., Sakaguchi, T., Kuriki, S., Blizard, D.A., Koide, T. (2009) QTL analyses of temporal and intensity components of home-cage activity in KJR and C57BL/6J strains, **BMC Genetics**, 10, 40 - 0
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1. 小出剛 マウス行動多様性の遺伝的基盤を探る 北海道大学獣医学研究談話会 北海道大学獣医学部 3/23

### POSTER PRESENTATIONS

1. 小出剛 「マウスにおけるコミュニケーションとその遺伝的要因ー行動遺伝学を通して」, 平成21年11月5日 金沢大学創基150年記念「講演会・シンポジウム」「社会認識」学際脳科学シンポジウム, 金沢, 11/5
2. 小出剛, 下位香代子, 榊原啓之 「動物行動多様性に関わる環境ー遺伝子相互作用」, 脳を巡る環境ー遺伝子相互作用の分子基盤, 東京, 8/29
3. Sugimoto, H., Takahashi, A., Shiroishi, T., Koide, T. 「Molecular and genetic analysis for aggressive behavior using B6-MSM consomic mouse strains」, 11th Annual Meeting of the International Behavioural and Neurogenetics Society, Dresden, 6/4-8
4. Umemori, J., Uno, T., Yuasa, S., Koide, T. 「Decreased expression of myelination associated genes in genetic incompatibility mice, Genic mice」, 23rd International Mammalian Genome Conference, La Jolla Torrey Pines, California, 11/1-4
5. 梅森十三, 近藤亮太, 宇野毅明, 湯浅茂樹, 小出剛 「遺伝的不適合による神経発達異常」, 第56回日本実験動物学会, 大宮, 5/14-16
6. 石井亜矢子, 西明紀, 城石俊彦, 小出剛 「B6-MSMコンソミックマウス系統を用いた自発活動性の遺伝学的解析」, 第32回日本神経科学大会, 名古屋, 9/16-18
7. 梅森十三, 宇野毅明, 湯浅茂樹, 小出剛 「遺伝的不適合マウスは脊髄オリゴデンドロサイトの成熟が異常である」, 第32回日本神経科学大会, 名古屋, 9/16-18
8. 杉本大樹, 高橋阿貴, 城石俊彦, 小出剛 「マウス攻撃行動における遺伝的基盤の解析」, 第32回日本神経科学大会, 名古屋, 9/16-18
9. 田邊彰, 石井亜矢子, 城石俊彦, 高橋阿貴, 小出剛 「コンソミックマウス系統を用いた不安様行動の高解像度マッピング」, 第32回日本神経科学大会, 名古屋, 9/16-18

## EDUCATION

1. 森裕司, 小出剛 第5回行動遺伝学研究会 国立遺伝学研究所研究会 三島 3/12
2. Koide, T., Palmer, A. Molecular and genetic approaches towards understanding behavior 第32回日本分子生物学会シンポジウム 横浜 12/10

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2. 小出剛 (2009) マウスを使って実験を始めよう マウス実験の基礎知識 9 - 22

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Noriyoshi Sakai

## RESEARCH ACTIVITIES

### PUBLICATIONS

#### Papers

1 . Kawasaki, T., Saito, K., Mitsui, K., Ikawa, M., Yamashita, M., Tanaiguchi, Y., Takeda, S., Mitani, K., Sakai, N. ( 2009 ) Introduction of a foreign gene into zebrafish and medaka cells using adenoviral vectors , **Zebrafish** , 6 , 253 - 258

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### POSTER PRESENTATIONS

- 1 . Sakai, N. 「 Recent progress of male germ cell culture and virus vectors 」, The Zebrafish Knockout Project: Organization and Strategy Meeting , Cambridge, UK , 3/7-3/9
- 2 . Saito, K., Sakai, N. 「 Distributed pattern of the pre-replicative complex component Sld5 on the division of long cell cycle spermatogonial stem cells in zebrafish 」, 第41回発生生物学会 , 新潟 , 5/28-5/31
- 3 . Kawasaki, T., Shinya, M., Sakai, N. 「 Self-renewal and differentiation of spermatogonial stem cells maintained by grafting the dissociated testicular cells in zebrafish 」, 第41回発生生物学会 , 新潟 , 5/28-5/31
- 4 . Kawasaki, T., Saito, K., Mitsui, K., Ikawa, M., Yamashita, M., Tanaiguchi, Y., Takeda, S., Mitani, K., Sakai, N. 「 Introduction of a foreign gene with mammalian adenovirus into fish cells 」, 第41回発生生物学会 , 新潟 , 5/28-5/31
- 5 . 酒井則良, 河崎敏広, 齊藤憲二, 新屋みのり 「 ゼブラフィッシュ精原幹細胞の培養と精子への分化 」, 第15回小型魚類研究会 , 名古屋 , 9/12-9/13
- 6 . 河崎敏広, 新屋みのり, 齊藤憲二, 酒井則良 「 精巣細胞の再集合 — 皮下移植によるゼブラフィッシュ精原幹細胞の増殖と精子形成 」, 第80回日本動物学会 , 静岡 , 9/17-9/20
- 7 . Kawasaki, T., Saito, K., Shinya, M., Sakai, N. 「 Production of progenies from cultured spermatogonial stem cells in zebrafish 」, 第32会日本分子生物学会 , 横浜 , 12/9-12/12
- 8 . Saito, K., Siegrid, K.R., Nusslein-Volhard, C., Sakai, N. 「 New ENU-induced zebrafish mutants with phenotypes of male infertility and meiotic arrest 」, 第32会日本分子生物学会 , 横浜 , 12/9-12/12
- 9 . Shinya, M., Kobayashi, K., Masuda, A., Tokumoto, M., Ozaki, Y., Kawasaki, T., Sado, Y., Saito, K., Sakai, N. 「 The development of gene-knockdown system using RNA interference in zebrafish 」, 第32回日本分子生物学会年会 , 横浜 , 12/9-12
- 10 . 新屋みのり 「 小型魚類を用いた量的形質遺伝子座解析～ 個体差を解析する～ 」, 日本

発生生物学会秋季シンポジウム，三島，11/27-29

11. 新屋みのり「メダカを用いた頭蓋顔面形態の遺伝学的解析」，第81回日本遺伝学会年会，松本，9/16-18

12. 新屋みのり「魚類頭部形態の定量と遺伝学的解析」，定量生物学の会遺伝研キャラバン，三島，3/13-14

## BOOK

1. 新屋みのり,酒井則良（2009）メダカ・ゼブラフィッシュ 身近な動物を使った実験 13-30

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Nori Kurata

## RESEARCH ACTIVITIES

### PUBLICATIONS

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- 1 . Fujisawa, H., Horiuchi, Y., Harushima, Y., Takada, T., Eguchi, S., Mochizuki, T., Sakaguchi, T., Shiroishi, T., Kurata, N. ( 2009 ) SNEP: Simultaneous detection of nucleotide and expression polymorphisms using Affymetrix GeneChip , **BMC Bioinformatics** , 10 , 131 - 0
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- 3 . 奥野員敏, 倉田のり ( 2009 ) 動植物育種の到達点と目標 , 育種学研究 , 11 , 107 - 107
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- 5 . Takano-Kai N., Jiang H., Kubo T., Sweeney M., Matsumoto T., Kanamori H., Padhukasahasram B., Bustamante C., Yoshimura A., Doi K. and McCouch S. ( 2009 ) Evolutionary History of GS3, a Gene Conferring Grain Length in Rice. , **Genetics** , 182 , 1323 - 1343
- 6 . Kubo T. Yamagata Y, Eguchi M. and Yoshimura A. ( 2008 ) A novel epistatic interaction at two loci causing hybrid male sterility in an inter-subspecific cross of rice (*Oryza sativa* L.). , **Genes Genet. Syst.** , 83 , 443 - 453

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- 1 . 倉田のり, 久保貴彦, 水多陽子, 新濱充, 藤田雅文, 大柳一, 望月孝子, 春島嘉章 「 Genetic and genomic analysis of factors consisting of reproductive barriers in rice 」, 第32回日本分子生物学会年会 ワークショップ3W6 "Mechanisms for reproductive isolation and their relation to genome evolution", 横浜市 , 12/9-12
- 2 . 守口和基, 枝廣憲孝, 池ヶ谷洋佑, 白木英介, 田中克幸, 倉田のり, 鈴木克周 「 IV型分泌機構を応用した新規迅速遺伝子導入法の確立 (Establishment of of a novel high-throughput gene introduction system using bacterial Type IV secretion system.) 」, 第32回日本分子生物学会年会ワークショップ3W6 "Mechanisms for reproductive isolation and their relation to genome evolution", 横浜市 , 12/9-12
- 3 . Kurata, N., Mizuta, Y., Kubo, T., Hrushima, Y. 「 Genome evolution and reproductive barriers in rice 」, 6th International Rice Genetics symposium , Manila , 11/16-19
- 4 . Kurata, N. 「 Wild Rice Resource Project in Japan Its Perspectives 」, 6th International Rice Genetics symposium , Manila , 11/16-19

5. 水多陽子、春島嘉章、倉田のり 「 イネ亜種間交雑において生殖的隔離を引き起こす相互作用遺伝子座DOPPELGANGER1と2の単離・解析 », 日本遺伝学会第81回大会, 松本市, 9/16-18
6. 春島嘉章、栗木哲、水多陽子、倉田のり 「 F2集団を使った配偶体または接合体内の2遺伝子座間の相互作用による生殖的隔離の検出 », 日本育種学会第116回講演会, 札幌市, 9/24-26
7. Win, K.T., Kubo, T., Miyazaki, Y., Doi, K., Yamagata, Y., Yasui, H., Yoshimura, A. 「 Molecular mapping of two loci conferring F1 pollen sterility in inter- and intraspecific crosses of rice. », 6th International Rice Genetics symposium, Manila, 11/16-19
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9. 濱田和輝、菊地俊介、望月孝子、倉田のり、矢野健太郎 「 イネの大規模な遺伝子発現データに基づく発現制御ネットワーク構築 », 日本育種学会第116回講演会, 札幌市, 9/25-26
10. Fujisawa, H., Horiuchi, Y., Harushima, Y., Takada, T., Eguchi, S., Mochizuki, T., Sakaguchi, T., Kawakita, M., Shiroishi, T., Kurata, N. 「 Statistical Analysis of Affymetrix GeneChip Data », TRIC Symposium "Statistical and Systems Genetics", 三島, 10/22
11. Harushima, Y., Kuriki, S., Fujisawa, H., Kurata, N. 「 Detection of interactive pairs of reproductive barriers using F<sub>2</sub> population », TRIC Symposium "Statistical and Systems Genetics", 三島, 10/23
12. 倉田のり、久保貴彦、水多陽子、山木辰一郎、堀内陽子、春島嘉章 「 野生イネ種間、種内変異とゲノム機能分化 », 日本遺伝学会第81回大会, 松本市, 9/16-18
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14. 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を用いた近縁イネゲノム配列データの評価 », 第32回日本分子生物学会年会, 横浜市, 12/9-12
15. 藤田雅文、堀内陽子、上田弥生、水多陽子、久保貴彦、矢野健太郎、山木辰一郎、津田勝利、新濱充、加藤大貴、菊地俊介、濱田和輝、望月孝子、堤伸浩、倉田のり 「 イネ全生殖過程における遺伝子発現解析を用いた多様な因子の補足 », 第32回日本分子生物学会年会, 横浜市, 12/9-12
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18. 上田健治、渡部奈穂美、高橋幸子、宮尾安藝雄、廣近洋彦、野々村賢一、倉田のり、我彦廣悦、井上正保 「 イネ花粉突然変異体Tos0445の単離と解析 », 日本植物学会第73回大会, 山形市, 9/17-20
19. 山木辰一郎、倉田のり、野々村賢一 「 イネの胚珠分化に異常を示すosmads13変異体の解析 », 日本育種学会第116回講演会, 札幌市, 9/24-26
20. 堀内陽子、春島嘉章、望月孝子、藤澤洋徳、川喜田雅則、江口真透、倉田のり 「 Affymetrix Rice Genome Arrayを用いたSFP検出とゲノム多様性解析への利用 », 日本育種学会第116回講演会, 札幌市, 9/24-26
21. 鷹野典子、H. Jiang、久保貴彦、松本隆、金森裕之、S. McCouch、吉村淳、土井一行 「 イネの種子長に関する遺伝子座GS3の多様性 », 日本育種学会第116回講演会, 札幌市, 9/24-26
22. 久保貴彦、春島嘉章、水多陽子、倉田のり 「 イネ亜種間交雑で分離の歪みを示すゲノム領域の検出 », 日本育種学会第115回講演会, つくば市, 3/26-28
23. 山木辰一郎、宮林登志江、永口貢、野々村賢一、倉田のり 「 野生イネの穂にみる分枝パターンの多様性 », 日本育種学会第115回講演会, つくば市, 3/26-28
24. 久保貴彦、山形悦透、江口真紀、吉村淳 「 イネのF1花粉不稔遺伝子S24に相互作用する遺伝子座S35 », 日本育種学会第115回講演会, つくば市, 3/26-28
25. 新濱充、春島嘉章、倉田のり 「 日本晴とKinandang putiとの交雑で見られる生殖隔離遺伝子座のマッピング », 日本育種学会第115回講演会, つくば市, 3/26-28

26. 藤田雅文、堀内陽子、上田弥生、水多陽子、久保貴彦、矢野健太郎、山木辰一郎、津田勝利、新浜充、加藤大貴、菊地俊介、濱田和輝、望月孝子、堤伸浩、倉田のり 「イネ全生殖過程における遺伝子発現解析を用いた多様な因子の捕捉」, 日本育種学会第115回講演会, つくば市, 3/26-28
27. 石川亮, 永口貢, 新崎由紀, 倉田のり, 木下哲 「栽培イネと野生イネの種間交雑にみられる胚乳発生異常の原因」, 第50回 日本植物生理学会年会, 名古屋, 3/21-24
28. 保浦徳昇, 諏訪部圭太, 安益公一郎, 鈴木剛, 矢野健太郎, 石水毅, 高橋宏和, 中園幹生, 長村吉晃, 倉田のり, 渡辺正夫, 松岡信, 堤伸浩 「イネの雄性配偶子とタペータム細胞でのトランスクリプトーム解析」, 第50回 日本植物生理学会年会, 名古屋, 3/21-24

## EDUCATION

1. 倉田のり 科学研究費特定領域研究「植物の生殖過程におけるゲノム障壁」班会議 東京 7/7-8
2. 長戸康郎、倉田のり イネ研究の多様性と展望 国立遺伝学研究所研究会 三島 10/30-31

## BOOK

1. 倉田のり, 野々村賢一 (2009) イネ 遺伝子資源・ゲノムリソースの現状と展望 バイオリソース&データベース活用術(細胞工学別冊) 190 - 192

## OTHERS

1. 倉田のり, 1, 日本育種学会副会長
2. 水多陽子, 春島嘉章, 倉田のり, 2, 日本遺伝学会第81回大会Best Paper賞

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Hironori Niki

## RESEARCH ACTIVITIES

### PUBLICATIONS

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1. 波田野俊之,仁木 宏典 (2009) バクテリアの染色体分配の普遍性と多様性, 蛋白質核酸酵素3月増刊, 54, 409 - 415
2. Furuya, K., and NIKI, H. (2009) Isolation of heterothallic haploid and auxotrophic mutants of *Schizosaccharomyces japonicus*. , **Yeast**, 26, 221 - 233
3. Shiomi, D., Mori, H., and Niki, H. (2009) Genetic mechanism regulating bacterial cell shape and metabolism, **Communicative & Integrative Biology**, 2, 219 - 220
4. 仁木宏典 (2009) バクテリアの形態はどのようにして決まるのか?, 化学と生物, 47, 831 - 837
5. 塩見 大輔,仁木 宏典 (2009) 細胞骨格蛋白質による大腸菌尾形態形成機構, 日本微生物形態学会誌, 24, 51 - 60
6. 仁木 宏典 (2007) バクテリアのセントロメア様領域, 実験医学, 25, 114 - 118

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1. 塩見大輔,仁木宏典 「 Global regulatory network among proteins that determine cell shape in *E. coli*. 」, 第32回日本分子生物学会年会, 横浜, 12/11
2. Niki, H. 「 Contribution of formation of the Ter domain for proper segregation of bacterial nucleoids 」, Gordon Research Conference, 'Chromosome Dynamics', Lucca (Barga), Italy, 24/5
3. Niki, H. 「 A Gene Network of Morphogenesis in the Rod-Shaped Bacterium 」, the 2009 EMBO workshop 'Frontiers of Bacterial Cell Biology', Oxford, UK, 24/8
4. Niki, H. 「 CHK1 DEPENDENT TRANSITION OF YEAST GROWTH TO HYPHAL GROWTH IN *SCHIZOSACCHAROMYCES JAPONICUS* 」, The 5th International Fission Yeast Meeting, Pombe 2009, Tokyo, 26/10
5. Niki, H. 「 CHK1 DEPENDENT TRANSITION OF YEAST GROWTH TO HYPHAL GROWTH IN *SCHIZOSACCHAROMYCES JAPONICUS* 」, The 5th International Fission Yeast Meeting, Pombe 2009, Tokyo, 26
6. Niki, H. 「 National BioResource Project - Japan of Prokaryotes 」, the First Asian Chapter Meeting of ISBER and Asian Network for Research Resource Center (ANRRC), Seoul, Korea, 22/9
7. Niki, H. 「 National BioResource Project - Japan of Prokaryotes 」, the First Asian Chapter Meeting of ISBER and Asian Network for Research Resource Center (ANRRC), Seoul, Korea, 22
8. Niki, H. 「 CHK1 DEPENDENT TRANSITION OF YEAST GROWTH TO HYPHAL GROWTH IN *SCHIZOSACCHAROMYCES JAPONICUS* 」, The International Symposium

on "Chromosome cycle and genome dynamics", 那須町 栃木県, 10/11

9. 仁木 宏典 「 ジャポニカス分裂酵母 (Schizosachharomyces japonicus) の 少し変わった細胞増殖メカニズム », 第68回酵母研究会, 京都, 13/3

10. 田口温子, 仁木宏典 「 大規模な逆位による染色体再編を利用した染色体機能領域の解析 », 第6回21世紀大腸菌研究会, 静岡県熱海市, 6/11-6/12

11. AOKI, K., FURUYA, K., and NIKI, H. 「 'SEMI-OPEN MITOSIS': NUCLEAR ENVELOPE WAS TORN OFF UPON NUCLEAR DIVISION IN Schizosaccharomyces japonicus », The 5th International Fission Yeast meeting, Tokyo, 10/26-31

12. 塩見大輔 「 細胞骨格タンパク質RodZの抑制変異解析から見た形態形成の制御の遺伝子ネットワーク », 第6回21世紀大腸菌研究会, 熱海市, 6/11-12

13. 塩見大輔, AOKI, Keita., 仁木宏典 「 B. subtilis knockout strains by the National BioResource Project in Japan », 5th Conference on Functional Genomics of Gram-positive Microorganisms, 15th International Conference on Bacilli, San Diego, CA USA, 6/14-18

14. 塩見大輔, 境雅子, 仁木宏典 「 桿菌の形を決める新規の細胞骨格性タンパク質 », 細菌学会, 名古屋, 03/13

## EDUCATION

1. 仁木 宏典 第6回 21世紀大腸菌研究会 熱海 11/6

## BOOK

1. 柳原克彦, 仁木 宏典 (2009) 原核生物の遺伝要素 分子生物学イラストレイテッド 改訂第3版 75 - 90

2. 青木敬太, 仁木宏典 (2009) 染色体の分配とM期制御 蛋白質核酸酵素3月増刊 406 - 408

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

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

## RESEARCH ACTIVITIES

### PUBLICATIONS

#### Papers

- 1 . Umemori, M., Habara, O., Iwata, T., Maeda, K., Nishinoue, K., Okabe, A., Takemura, M., Takahashi, K., Saigo, K., Ueda, R., and Adachi-Yamada, T. ( 2008 ) RNAi-Mediated Knockdown Showing Impaired Cell Survival in Drosophila Wing Imaginal Disc. , **Gene Regulation and Systems Biology** , 3 , 11 - 20
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- 4 . Kanie, M., Yamamoto-Hino, M., Karino, Y., Nishihara, S., Ueda, R., Goto, S. and Kanie, O. ( 2009 ) Insight into the Regulation of Glycan Synthesis in Drosophila Chaoptin Based on Mass Spectrometry. , **PLoS ONE** , 4 , 0 - 0

### POSTER PRESENTATIONS

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## G. CENTER FOR GENETIC RESOURCE INFORMATION

### G-a. Genetic Informatics Laboratory

## G. CENTER FOR GENETIC RESOURCE INFORMATION

### G-a. Genetic Informatics Laboratory

Yukiko Yamazaki

## RESEARCH ACTIVITIES

### PUBLICATIONS

#### Papers

1 . Sato, K.,Shin-i,T.,Seki,M.,Shinozaki,K.,Yoshida,H.,Takeda,K.,Yamazaki,Y.,Conte,M.,Kohara,Y. ( 2009 ) Development of 5006 Full-Length cDNAs in Barley: A Tool for Accessing Cereal Genomics Resources. , **DNA Res.** , 16 , 81 - 89

2 . Yukiko Yamazaki,Sugawara, H. ( 2009 ) National BioResource Project Information Center , **Exp. Anim.** , 58 , 75 - 84

### POSTER PRESENTATIONS

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2 . Yamazaki, Y.,Tsuchiya, R., Asanuma, T., Shidahara, Y. and Sakaniwa, S. 「 Direct submission system and literature annotation of rice genes in Oryzabase 」, Biocuration 2009 , Berlin , 4/17-20

3 . 山崎由紀子 「 ナショナルバイオリソースプロジェクト情報整備プログラムの成果と展望 」, 統合データベースプロジェクトシンポジウム , 東京 , 6/12

4 . Yamazaki, Y. 「 Bioresource databases in Japan(tmp) 」, ANNRRC Meeting , ソウル , 9/22-25

5 . 山崎由紀子 「 植物バイオリソース情報-整備状況と利用方法について- 」, 新しい作物科学を支えるバイオリソース , つくば , 3/28

6 . Tsuchiya, R.,Yamazaki, Y. 「 CMAP(tmp) 」, 育種学会研究集会 , 札幌 , 11/25

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### BOOK

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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 . Langenhan T, Promel S, Mestek L, Esmaeili B, Waller-Evans H, Hennig C, Kohara Y, Avery L, Vakonakis I, Schnabel R, Russ AP. ( 2009 ) Latrophilin signaling links anterior-posterior tissue polarity and oriented cell divisions in the *C. elegans* embryo. , **Developmental Cell** , 17 , 494 - 504
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- 7 . Kobayashi N, Watanabe M, Horiike T, Kohara Y, Okada N. ( 2009 ) Extensive analysis of EST sequences reveals that all cichlid species in Lake Victoria share almost identical transcript sets. , **Gene** , 442 , 187 - 191
- 8 . Sasaki S, Mello CC, Shimada A, Nakatani Y, Hashimoto S, Ogawa M, Matsushima K, Gu SG, Kasahara M, Ahsan B, Sasaki A, Saito T, Suzuki Y, Sugano S, Kohara Y, Takeda H, Fire A, Morishita S. ( 2008 ) Chromatin-associated periodicity in genetic variation downstream of transcriptional start sites. , **Science** , 323 , 401 - 404

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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 . Dang, Z., Yagi, K., Oku, Y., Kouguchi, H., Kajino, K., Watanabe, J., Matsumoto, J., Nakao, R., Wakaguri, H., Toyoda, A. and Sugimoto, C. ( 2009 ) Evaluation of *Echinococcus multilocularis* tetraspanins as vaccine candidates against primary alveolar echinococcosis. , **Vaccine** , 27 , 7339 - 7345
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- 4 . Iida, K., Fukami-Kobayashi, K., Toyoda, A., Sakaki, Y., Kobayashi, M., Seki, M., and Shinozaki, K. ( 2009 ) Analysis of Multiple Occurrences of Alternative Splicing Events in *Arabidopsis thaliana* Using Novel Sequenced Full-Length cDNAs. , **DNA Res.** , 16 , 155 - 164
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### POSTER PRESENTATIONS

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- 2 . 黒川顕, 森宙史, 堂園亜由美, 丸山史人, 加藤広海, 大坪嘉行, 豊田敦, 藤山秋佐夫, 津田雅孝 「新型シーケンサーによるメタゲノム解析」, 第32回分子生物学会年会, 横浜市, 12/9-12
- 3 . Suzuki, T., Ueda, H., Yano, T., Okada, S., Terajima, T., Mitsuyama, T., Toyoda, A., Fujiyama, A., Kawabata, A., Sakurai, M., 「A landscape of A-to-I RNA editing in human transcriptome: a hidden layer of gene expression produced by qualitative information embedded in RNA molecules.」, 第32回分子生物学会年会, 横浜市, 12/9-12
- 4 . Kunieda, T., Kuwahara, H., Horikawa, D., Toyoda, A., Kaytayama, T., Arakawa, K., Yamaguchi, A., Shin-I, T., Onishi, K., Motoyama, A., Aizu, T., Hasebe, Y., Kido, N., Kanehisa, M., Kubo, T., Kohara, Y., Fujiyama, A. 「Genome analysis and functional proteomics of anhydrobiotic extremotolerant tardigrade *Ramazzottius cf. varieornatus*」, 第32回分子生物

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5 . Nagata, T., kaminuma, E., Ohyanagi, H., Mochizuki, T., Nakamura, Y., Aizu, T., Fujiyama, A., Toyoda, A., Kurata, N. 「 The evaluation of the closely related rice genome arrangement data which analyzed with a next generation high-speed sequencer. 」, 第32回分子生物学会年会，横浜市，12/9-12

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7 . Shang, W., Hori, T., Toyoda, A., Fujiyama, A., Fukagawa, T. 「 Characterization of chicken centromere DNA 」, 第32回分子生物学会年会，横浜市，12/9-12

8 . Masuzaki, S., Yamasaki, T., Kujime, Y., Kishikawa, S., Nakade, K., Yoshiki A., Abe, K., Toyoda, A., Murata, T., Obata, Y. 「 Consolidation of DNA resource infrastructure in the RIKEN BioResource Center: Construction of a BAC library derived from a mouse strain C57BL/6N. 」, 第32回分子生物学会年会，横浜市，12/9-12

9 . Kubo, T., Yamato, K., Yamano, T., Satake, T., Suzuki. Y., Sugano, S., Fujiyama, A., Kohara, Y., Toyoda, A., Shin-I, t., Kuroki, Y., Itoh, T., Taniguchi, T., FukazawaH. 「 *ChlamyBase*, *Chlamydomonas* genome database based on the genomic resources of matingtype minus strain and transcriptome data obtained by massively paralleled sequencing. 」, 第32回分子生物学会年会，横浜市，12/9-12

10 . Kuroki, Y., Toyoda, A., Kondo, S., Nishida, Y., Ebata, T., Shin-I, T., Kohara, Y., Fujiyama, A. 「 Comparative analysis of the Y chromosomes to understand the male-specific character in mammalian genome evolution. 」, 第32回分子生物学会年会，横浜市，12/9-12

11 . Nishida, Y., Kondo, S., Kuroki, Y., Toyoda, A., Fujiyama, A. 「 Construction bioinformatics analysis pipeline of the resequencing data with next generation sequencer. 」, 第32回分子生物学会年会，横浜市，12/9-12

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13 . Watanabe, T., Chuma, S., Totoki, Y., Toyoda, A., Yamamoto, Y., Hoki, Y., Fujiyama, A., Shibata, T., Nakatsuji, N., Sado, T., Sasaki, H. 「 Zucchini is a mitochondrial protein required for spermatogenesis and piRNA biogenesis in mouse. 」, 第32回分子生物学会年会，横浜市，12/9-12

14 . Kuma, K., Noguchi, H., Komoda, T., Kobayashi, S., Taniguchi, T., Ito, T., Araki, J., Fujiyama, A. 「 The genome viewer displaying unified data from multiple genome databases. 」, 第32回分子生物学会年会，横浜市，12/9-12

15 . 豊田 敦 「ラットゲノム研究:SNP解析と次世代シーケンサー」, 第2回ラットリソースリサーチ研究会，京都，1/30

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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. Nishino, Y., Takahashi, Y., Imamoto, N., Ishikawa, T., and Maeshima, K. (2009) Three-dimensional visualization of a human chromosome using coherent X-ray diffraction, **Physical Review Letters**, 102, 018101 -
2. Maeshima, K. and Nishino, Y. (2009) Three-Dimensional Visualization of a Human Chromosome Using Coherent X-ray Diffraction., **Spring-8 Research Frontiers**, , 46 - 47
3. Nishino, Y., Takahashi, Y., Kubo, H., Furukawa, H., Yamauchi, K., Maeshima, K., Imamoto, N., Hirohata, R., Matsubara, E., and Ishikawa, T. (2009) Nanostructure analysis by coherent hard X-ray diffraction., **J Phys**, 186, 012056 -
4. Takemoto, A., Maeshima, K., Ikehara, T., Yamaguchi, K., Murayama, A., Imamura, S., Imamoto, N., Yokoyama, S., Hirano, T., Watanabe, Y., Hanaoka, F., Yanagisawa, J., Kimura, K. (2009) The chromosomal association of condensin II is regulated by a noncatalytic function of PP2A., **Nat Struct Mol Biol**, 13, 1302 - 1308

### ORAL PRESENTATION

1. 12/3-12/5 12/3-12/5 理研セミナー 和光 3/24

### POSTER PRESENTATIONS

1. Kazuhiro Maeshima 「 How Is Genome DNA Compacted into a Mitotic Chromosome? 」, The 9th NIBB-EMBL Symposium Functional Imaging from Atoms to Organisms , Okazaki , 4/20-4/22
2. Kazuhiro Maeshima 「 Mitotic chromosome structure: irregular folding of nucleosome fibers 」, 17th International Chromosome Conference Boone , NC, USA , 6/23-6/26
3. 前島一博 「 放射光によるバイオイメージング:その可能性と未来 」, SPring-8次期計画2019シンポジウム~光科学の明日~, 東京, 6/19
4. 前島一博 「 核内と分裂期染色体内のglobalなクロマチン構造 」, 第82回日本生化学会年会シンポジウム「クロマチン生物学の近未来」, , 10/23
5. 前島一博 「 核内と分裂期染色体内のglobalなクロマチン構造 」, 第32回日本分子生物学会年会ワークショップ クロマチン機能構造の階層性, , 12/12
6. 白 燦基, 今本 尚子, 金城 政孝, 「 蛍光相関分光法で生細胞の分裂期染色体内部を見る 」, 第32回日本分子生物学会, 神奈川県 ,

### BOOK

1. 前島一博、西野吉則 (2009) コヒーレントX線回折によるヒト染色体構造の3次元観察  
生物物理 298 - 300
2. 日原さえら、前島一博 (2009) 分裂期染色体の構築原理 実験医学増刊 細胞核—遺  
伝情報制御と疾患 43 - 51

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H. STRUCTURAL BIOLOGY CENTER  
H-b. Molecular Biomechanism Laboratory

H. STRUCTURAL BIOLOGY CENTER  
H-b. Molecular Biomechanism Laboratory  
Nobuo Shimamoto

## RESEARCH ACTIVITIES

### PUBLICATIONS

#### Papers

1. 嶋本伸雄, 中村 史, 青木幸広, 鹿田真一, 山田貴壽, 雨宮陽介, 畠山明子, 藤森直治 (2009) ダイヤモンドナノ針-ナノ細胞マッピングに向けた取り組み-, ニューダイヤモンド, 94, 23 - 29
2. Amemiya, Y., Hatakeyama, A., and Shimamoto, N. (2008) Aminosilane Multilayer Formed on Single-Crystalline Diamond Surface with Controlled Nanoscopic Hardness and Bioactivity by Wet Process, **Langmuir**, 25, 203 - 209

### POSTER PRESENTATIONS

1. 嶋本伸雄 「Asian and Oceanian Conference of Transcription」, Sokendai International symposium 2009, 神奈川県三浦郡葉山町, 12/14~17
2. 嶋本伸雄、中山秀喜 「ナノバイオロジーのパワーを基礎生物学で引き出す条件」, 第32回分子生物学会年会, 横浜市, 12/9~12
3. 今清水正彦、嶋本伸雄 「ピロリン酸による転写のproofreading」, 第32回分子生物学会年会, 横浜市, 12/9~12
4. 中山秀喜、嶋本伸雄 「tmRNAによる定常期の維持」, 第32回分子生物学会年会, 横浜市, 12/9~12
5. 藤田龍介、嶋本伸雄 「機能的SELEXを用いた大腸菌ゲノム内のプロモーター配列の解析」, 第32回分子生物学会年会, 横浜市, 12/9~12
6. 畠山明子、雨宮陽介、今清水正彦、中山秀喜、嶋本伸雄 「ナノ電極を用いた単一細胞への電気的物質導入」, 第32回分子生物学会年会, 横浜市, 12/9~12
7. 今清水正彦、嶋本伸雄 「ピロリン酸による転写のproofreading」, ラン藻の分子生物学2009, 木更津市, 12/4~5
8. 嶋本伸雄、中山秀喜 「ナノバイオロジーで何がわかるか 翻訳機構と大腸菌の定常期適応」, 日本動物学会 第80回大会 2009静岡, 静岡市, 9/17~20
9. 中山秀喜、嶋本伸雄、伊藤耕一 「Translation cycle とリボソーム休眠」, 第6回21世紀大腸菌研究会, 熱海市, 6/11~12
10. 中山秀喜、嶋本伸雄、伊藤耕一 「Translation cycle とリボソーム休眠」, 第11回RNAミーティング, 新潟市, 7/27~29
11. 今清水正彦、嶋本伸雄 「転写のproofreading機構」, 第6回21世紀大腸菌研究会, 熱海市, 6/11~12
12. Madhura Raghavan、嶋本伸雄、中山秀喜 「大腸菌の増殖の不均一性」, 第6回21世紀大腸菌研究会, 熱海市, 6/11~12
13. 今清水正彦、嶋本伸雄 「シアノバクテリアと大腸菌RNA polymerasesの機能比較から見る転写のfidelity維持機構」, 第3回日本ゲノム微生物学会, 東京都, 3/5~7



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

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

## RESEARCH ACTIVITIES

### POSTER PRESENTATIONS

- 1 . Shirakihara, Y.,Tanikawa, H.,Yoshimune,K., Murakami S., Suzuki T., Yoshida M. 「 Crystallization of ATPsynthase 」, 生物物理47回年会, 徳島, 10/30~11/1
- 2 . Ito, H.,Watanabe, N.,Yao, M.,Shirakihara, Y.,Tanaka, I. 「 C.glutamicum由来多剤調節因子CgmRの構造学的研究:多剤耐性に適したもうひとつのリプレッサーの作用機構 」, 日本蛋白質科学会2009年年会, 熊本県、熊本市, 5/20-22

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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. Kurusu,M.,Maruyama,Y.,Adachi,Y.,Okabe,M.,Suzuki,E.,and Katsuo Furukubo-Tokunaga. ( 2008 ) A conserved nuclear receptor,Tailless,is required for efficient proliferation and prolonged maintenance of mushroom body progenitors in the *Drosophila* brain , **Developmental Biology** , 326 , 224 - 236
2. Sone,M.,Uchida,A.,Komatsu,A.,Suzuki,E,Ibuki,I,Asada,M.,Shiwaku,H.,Tamura,T.,Hoshino,M.,Okazawa,H.,and Nabeshima,Y. ( 2008 ) Loss of *yata*,a Novel Gene Regulating the Subcellular Localization of APPL,Induces Deterioration of Neural Tissues and Lifespan Shortening , **PLoS ONE** , 4 , 1 - 19
3. Hong,W.,Zhu,H.,Potter,C.,Barsh,G.,Kurusu,M.,Zinn,K.,and Luo,L. ( 2009 ) Leucine-rich repeat transmembrane proteins instruct discrete dendrite targeting in an olfactory map , **Nature Neuroscience** , 12 , 1542 - 1551
4. Furukubo-Tokunaga,K., Adachi,Y., Kurusu,M., and Walldorf,U. ( 2009 ) Brain patterning defects caused by mutations of the twin of eyeless gene in *Drosophila melanogaster*. , **Fly(Austin)** , 3 , 263 - 269

### POSTER PRESENTATIONS

1. 鈴木えみ子 「 Summer Research Program for Undergraduate Students,NIGINTERN 」, SOKENDAI INTERNATIONAL SYMPOSIUM 2009, 神奈川県葉山町, 12/14~12/17
2. Nakayama,M.,Okuda,T.,Fujisawa,N.,Kono,N.,Arai,H.,Suzuki,E.,Ishikawa,H.,and Matsuno,K. 「 A *Drosophila* model of peroxisome disease revealed an essential role of peroxisome in male-specific meiosis 」, 日本発生物学会 第42回大会, 新潟, 5/28~5/31
3. Nakayama,M.,Okuda,T.,Fujisawa,N.,Kono,N.,Arai,H.,Suzuki,E.,Umeda,M.,Ishikawa,H.,and Matsuno,K. 「 A *Drosophila* model of peroxisome disease revealed an essential role of peroxisome in male-specific germ cell maturation 」, The 9th Japanese *Drosophila* Research Conference, 孀恋, 7/6~7/8
4. Kurusu,M.,Zinn,K.,and Suzuki,E. 「 N-Cadherin regulates birth order-dependent axonal fasciculation,axon growth,and dendritic terminal morphology during the development of *Drosophila* mushroom body. 」, The 9th Japanese *Drosophila* Research Conference, 孀恋, 7/6
5. Yasunaga,K.,Suzuki,E.,and Emoto,K. 「 Dendrite rearrangement in adult *Drosophila* sensory neurons 」, The 9th Japanese *Drosophila* Research Conference, 孀恋, 7/6~7/8
6. Kurusu,M.,Zinn,K.,and Suzuki,E. 「 Spatiotemporal change in the expression of cell-adhesion molecule during neural differentiation is crucial for the neural circuit formation. 」, 第32回日本分子生物学会年会, 横浜, 12/9~12/12
7. 中山実、奥田貴之、藤澤奈穂、河野望、新井洋由、鈴木えみ子、梅田真郷、石川裕之、松野健治 「 ショウジョウバエをモデル系としたペルオキシソーム形成異常症の病態研究 」, 第32回日本分子生物学会年会, 横浜, 12/9~12/12
8. 安永桂一郎、金森崇浩、鈴木えみ子、榎本和生 「 ショウジョウバエ成虫期における感覚ニューロン樹状突起構造の再編 」, 第32回日本分子生物学会年会, 横浜, 12/9~12/12

### OTHERS

1. 鈴木えみ子, 1, 第32回日本分子生物学会年会組織委員

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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. 五條堀 孝 (2009) 進化の大樹のてっぺんから、私たちを知る, **Someone** [サムワン], 10, 20 - 21
2. Clemente, J.C., Ikeo, K., Valiente, G., Gojobori, T. (2009) Optimized ancestral state reconstruction using Sankoff parsimony, **BMC Bioinformatics**, 10, 1 - 27
3. Suzuki, H., Gojobori, T., Ikeo, K., Sera, M., Kawai, J. and 156 authors. (2009) The transcriptional network that controls growth arrest and differentiation in a human myeloid leukemia cell line, **Nature Genetics**, 41, 553 - 562
4. Abdu, M., Ahmed, I., Brahmachari, S., Gojobori, T., Liu, E., Sugano, S., Suzuki, Y., Tokunaga, K., Zilfalil, B.A. and 85 authors. (2009) Mapping Human Genetic Diversity in Asia, **Science**, 326, 1541 - 1545
5. Fukuchi, S., Homma, K., Sakamoto, S., Sugawara, H., Tateno, Y., Gojobori, T. and Nishikawa, K. (2009) The GTOP database in 2009: updated content and novel features to expand and deepen insights into protein structures and functions., **Nucleic Acids Res.**, 37, 333 - 337
6. Shimada, M.K., Matsumoto, R., Hayakawa, Y., Sanbonmatsu, R., Gough, C., Yamaguchi-Kabata, Y., Yamasaki, C., Imanishi, T. and Gojobori, T. (2009) VarySysDB: a human genetic polymorphism database based on all H-InvDB transcripts., **Nucleic Acids Res.**, 37, 810 - 815
7. Komiyama, T., Kobayashi, H., Tateno, Y., Inoko, H., Gojobori, T. and Ikeo, K.. (2009) An evolutionary origin and selection process of goldfish., **GENE**, 430, 5 - 11
8. Uehara, S., Izumi, Y., Kubo, Y., Wang, C.C., Mineta, K., Ikeo, K., Gojobori, T., Tachibana, M., Kikuchi, T., Kobayashi, T., Shibahara, S., Taya, C., Yonekawa, H., Shiroishi, T. and Yamamoto, H. (2009) Specific expression of Gsta4 in mouse cochlear melanocytes: a novel role for hearing and melanocyte differentiation., **Pigment Cell Melanoma Res.**, 22, 111 - 119
9. Sugawara, H., Ikeo, K., Fukuchi, S., Gojobori, T. and Tateno, Y. (2009) DDBJ dealing with mass data produced by the second generation sequencer., **Nucleic Acids Res.**, 37, 16 - 18
10. Jin, L., Kryukov, K., Suzuki, Y., Imanishi, T., Ikeo, K. and Gojobori, T. (2009) The evolutionary study of small RNA-directed gene silencing pathways by investigating RNase III enzymes., **GENE**, 435, 1 - 8
11. Mano, S., Endo, T., Oka, A., Ozawa, A., Gojobori, T., Inoko, H. (2009) Detecting linkage between a trait and a marker in a random mating population without pedigree record, **PLoS One**, 4, 4956 - 0

- 12 . Fukuchi, S., Homma, K., Minezaki, Y., Gojobori, T., Nishikawa, K.. ( 2009 ) Development of an accurate classification system of proteins into structured and unstructured regions that uncovers novel structural domains: its application to human transcription factors. , **BMC Structural Biology** , 9 , 1 - 31
- 13 . Liu, QX., Hiramoto, M, Ueda, H., Gojobori, T., Hiromi, Y., and Hirose, S. ( 2009 ) Midline governs axon pathfinding by coordinating expression of two major guidance systems , **Genes & Development** , 23 , 1165 - 1170
- 14 . Suzuki, Y., Gojobori, T., Kumar, S. ( 2009 ) Methods for incorporating the hypermutability of CpG dinucleotides in detecting natural selection operating at the amino acid sequence level , **Mol Biol Evol.** , 26 , 2275 - 2284
- 15 . Kawahara, Y., Sakate, R., Matsuya, A., Murakami, K., Sato, Y., Zhang, H., Gojobori T., Itoh, T., and Imanishi, T. ( 2009 ) G-compass: A Web-based comparative genome browser between human and other vertebrate species , **Bioinformatics.** , 25 , 3321 - 3322
- 16 . 五條堀孝、金城その子、Jose C. Clemente、池尾一穂 ( 2009 ) 超高速シーケンス時代のデータベース戦略, 実験医学 , 27 , 32 - 37
- 17 . 林崎良英、八尾徹、五條堀孝 ( 2009 ) 次世代シーケンサーは生命科学に新たな”革命”をもたらす, 科学2 , 79 , 231 - 244
- 18 . 五條堀孝 ( 2009 ) ”宝”が眠る進化研究最前線, 月刊「公明」, 3 , 42 - 47
- 19 . 池尾一穂、五條堀孝 ( 2009 ) ダーウィンをみつめて, **Someone [サムワン]**, 7 , 13 - 15
- 20 . 瀬名秀明、五條堀孝 ( 2009 ) 人類はミュータントXとスパイダーマンを誕生させることができるか, **Back Up (バックアップ)**, 28 , 10 - 15
- 21 . 五條堀孝 ( 2009 ) 木村資生が残した宿題 分子進化の中立説40年, 総研大ジャーナル春号 , 15 , 20 - 21
- 22 . 五條堀孝 ( 2009 ) [特集]国立遺伝学研究所60年の歩みを映して DDBJ事業 , 生物の科学 遺伝 , 60 , 86 - 90
- 23 . 五條堀孝、山内一也 ( 2009 ) 細胞とウイルスの境界線『現代科学も決して作れない”超精密機械”細胞のすべて』, ニュートンムック , , 136 - 141
- 24 . 館野義男、古江基樹、五條堀孝 ( 2009 ) 「パーソナルゲノム時代の創薬」『次世代創薬テクノロジー 実践:インシリコ創薬の最前線』, 遺伝子医学MOOK 14 , , 175 - 179

## ORAL PRESENTATION

- 1 . Takashi Gojobori “The entire distribution of TSS (Transcription Start Sites) in the human genome and it’s evolutionary implication to non-coding RNAs” Seminar at Stazione Zoologica Anton Dohrn Stazione Zoologica Anton Dohrn (Naples, Italy) 4/30
- 2 . 五條堀 孝 「生命と知能の進化」 慶応義塾大学湘南藤沢キャンパス 10/27
- 3 . 五條堀 孝 「ペタゲノミクスの時代を迎えて-超大量な生命情報への将来戦略」 先端生命科学研究会 慶応義塾大学湘南藤沢キャンパス 10/27
- 4 . Takashi Gojobori “Evolution of the Central Nervous System from the viewpoint of Comparative Genomics” NCKU, National Cheng Kung University, (Tainan, ROC) 11/12
- 5 . Takashi Gojobori “Evolution of Camera Eye from the viewpoint of Comparative Gene Expression” NTU, National Taiwan University (Taiwan, ROC) 11/13

## POSTER PRESENTATIONS

- 1 . 五條堀 孝 「ゲノムネットワーク時代の生命医科学」, 第5回ゲノムネットワークプロジェクト公開シンポジウム「ゲノムネットワークが拓く新しい医学・生物学」, 東京, 1/16
- 2 . 五條堀 孝 「「肝炎ウイルス・データベースの構築と宿主ファクターの研究応用」」, 厚生労働科研費4班合同班会議, 東京, 2/7
- 3 . Takashi Gojobori 「“Hinv database and Genome Network Project”」, Korea-China-Japan Bioinformatics Training Course , Kyoto , 2/27
- 4 . 五條堀 孝 「「バイオ研究開発の最前線と情報戦略」, 平成20年度富士山麓エリア都市エリア産学官連携促進事業成果発表会, 静岡県沼津市, 3/11
- 5 . Takashi Gojobori 「“Biomolecular information infrastructure in Japan and its global collaborations”」, ELIXIR WP3 Global Committee meeting , Hinxton, United Kingdom , 4/28

6. Takashi Gojobori 「“Is Darwinian evolution the impetus of species differences in the genome network system?”」, IUBS-UNESCO Symposium “Basic Issues in Evolution”, Venice, Italy, 5/3
7. Takashi Gojobori 「「創立60周年の歩み」」, 遺伝研60周年記念事業記念講演会, 静岡県三島市, 6/1
8. Takashi Gojobori 「“Evolution of the Central Nervous System: Comparative Gene Expression Approach”」, Albany 2009, Albany, N.Y., USA, 6/18
9. 五條堀 孝 「「遺伝学から見る新型インフルエンザ」」, 医看工総会, 静岡県三島市, 6/22
10. 五條堀 孝 「「データ解析拠点の構築と情報研究開発」」, セルイノベーションプログラムとPDPOとシーケンス拠点、データ解析拠点との打合せ, 東京, 6/30
11. 五條堀 孝 「「データ解析拠点の構築と情報研究開発」」, セルイノベーションキックオフミーティング, 東京, 7/27
12. 五條堀 孝 「「シーケンス革命を見据えた海洋ゲノム研究開発の将来」」, シンポジウム「海洋ゲノム情報を活用した革新的食料生産技術の開発」, 東京, 8/18
13. 五條堀 孝 「「ゲノムからみた脳・神経系の起源と進化」」, ダーウィン生誕200年記念公開シンポジウム, 東京, 8/22
14. 五條堀 孝 「「病態のシステムの理解と疾患情報モデルの構築」」, 平成21年度第2回企画委員会, 兵庫県神戸市, 9/1
15. 五條堀 孝 「「次世代シーケンサー時代のデータベース」」, 日本遺伝学会第81回大会, 長野県松本市, 9/16
16. 五條堀 孝 「「遺伝学会用語集委員会新設の経緯と趣旨」」, 日本遺伝学会第81回大会, 長野県松本市, 9/17
17. 五條堀 孝 「“Human Genome Network”」, JST-ETHZ Workshop on Molecular Medical Research, 東京, 9/22
18. 五條堀 孝 「「ペタゲノミクスの到来-生命情報の超大量時代をどう乗り越えるか」」, GCOE若手支援シンポジウム, 北海道札幌市, 9/30
19. Takashi Gojobori 「“The Perspectives of Evolutionary Genomics: “Sequencing Revolution” and its Implications in Evolutionary Studies”(Video Presentationにて参加)」, Darwin200 Human Evolution Symposium (Meeting devoted to the 150th of the Origin of Species), Bellville, Cape Town, South Africa, 10/12
20. 五條堀 孝 「「肝臓病:トランスレーショナル・リサーチへのゲノム情報戦略」“LMER DISEASE: Strategic approach of genomic information to translational research”」, 日本肝臓学会大会, 京都府, 10/15
21. Takashi Gojobori 「“確認中”(Video Presentationで講演-現地参加はなし)」, Rap 6 Workshop, Manila, Philippines, 11/15
22. Takashi Gojobori 「“Introduction to International databases”」, 日本肝臓学会The 8th Single Topic Conference “HBV Now in Asia” & Special Hands-on Seminar “How to Master Bioinformatics of Hepatitis Viruses Using International Databases”, 東京, 11/23
23. 五條堀 孝 「「ライフサイエンスの研究開発におけるオミックス研究の重要性」」, 木原財団研究開発事業成果報告会2009, 神奈川県横浜市, 11/25
24. 五條堀 孝 「「眼の起源と進化～われわれはどうして光を見ることができるようになったのか」」, 浜松コンファレンス, 静岡県浜松市, 11/29
25. 五條堀 孝 「「共同利用としてのライフサイエンス基盤-日本DNAデータバンク(DDBJ)とライフサイエンス統合データベース(LSDB)」」, 公開シンポジウム「情報とシステム2009-科学と文化の基盤:大学と育むデータベース-」, 東京都, 11/30
26. 五條堀 孝 「「病態のシステムの理解と疾患情報モデルの構築」」, 応用ゲノムCO1、CO2班会議, 東京都, 12/2
27. 五條堀 孝 「「パーソナルゲノム時代におけるDNA鑑定の今後」」, DNA鑑定学会学術大会, 神奈川県横浜市, 12/9
28. Takashi Gojobori 「“An evolutionary process of the central nervous system from the viewpoint of comparative gene expression”」, 第32回日本分子生物学会, 神奈川県横浜市, 12/11

## EDUCATION

1. 五條堀 孝 国立遺伝学研究所研究会「パーソナルゲノム時代のヒトゲノム多様性研究一

シーケンス革命とゲノム解析-」 静岡県三島市 1/23

2. 五條堀 孝 経産省統合データベースプロジェクト第2回運営委員会 東京都江東区 2/23

3. 五條堀 孝 バチカン市国大使上野景文様講演会 静岡県三島市 2/26

4. JST, CIB-DDBJ, NIG, KOBIC, KRIBB, SCBIT Korea-China-Japan Bioinformatics Training Course & Symposium 京都府 2/25-28

5. 五條堀 孝 「生命情報科学若手の会」設立および第1回研究会 静岡県三島市 4/25-26

6. 国立遺伝学研究所 遺伝研60周年記念事業式典、記念講演会 静岡県三島市 6/1

7. 日本学術会議基礎生物学委員会、応用生物学委員会合同進化・系統学分科会（運営委員長:五條堀 孝） ダーウィン生誕200年記念公開シンポジウム 東京都 8/22

8. 五條堀 孝（理事長） DNA鑑定学会学術大会 神奈川県横浜市 12/9

9. 五條堀孝、佐藤矩行、池尾一穂 International Symposium Marine Genomics 沖縄県那覇市 12/15-18

10. 遺伝学普及会 市民公開講演会 静岡県三島市 9/19

## BOOK

1. John M. Butler(著) 福島弘文、五條堀 孝[監訳] 藤宮仁、玉田一生、福間義也、長崎華奈子[訳] (2009) DNA鑑定とタイピング **Forensic DNA Typing (Biology, Technology, and Genetics of STR Markers)** 0 - 0

2. 斎藤成也、藤博幸、小林一三、川島武士、佐藤矩行、植田信太郎、五條堀 孝 (2009) 進化学と生命情報 シリーズ進化学 ② 遺伝子とゲノムの進化 239 - 258

3. 五條堀 孝 (2009) 生命情報のデータベース化 理科年表**2010** 904 - 0

4. Gojobori, T., Ikeo, K. and Hwang, JS. (2009) The evolutionary origin and process of the central nervous system: Comparative genomics approach **Scientific Insights Into the Evolution of the Universe and of Life** 321 - 336

5. Gojobori, T., Nakagawa, S. and Clemente, JC. (2009) DNA sequence analysis (Version 2.0) **Encyclopedia of Life Sciences** 1 - 9

6. John M. Butler(著) 福島弘文、五條堀 孝[監訳] 藤宮仁、玉田一生、福間義也、長崎華奈子[訳] (2009) 遺伝学・データベース・計測技術・データ検証・品質管理 **DNA鑑定とタイピング** 0 - 0

7. 斎藤成也、藤博幸、小林一三、川島武士、佐藤矩行、植田信太郎、五條堀孝 (2009) 進化学と生命情報 シリーズ進化学 ② 遺伝子とゲノムの進化 239 - 258

8. 五條堀孝他 (2009) 生命情報のデータベース化 理科年表**2010** 904 - 0

## PATENT

1. 2009-042148, 生命現象予測装置、生命現象予測方法、および生命現象予測プログラム, 紺野剛史 宮本青 池尾一穂, 富士通株式会社 大学共同利用機関法人情報・システム研究機構

## OTHERS

1. 五條堀 孝, 1, Editor of FEBS Letters

2. 五條堀 孝, 1, Editor of GENE

3. 五條堀 孝, 1, Founding Editor of Genome Biology and Evolution

4. 五條堀 孝, 1, Associate Editor of Molecular Biology and Evolution

5. 五條堀 孝, 1, Associate Editor of PLoS Genetics

6. 五條堀 孝, 1, Editorial Board of Investigative Genetics

7. 五條堀 孝, 1, Editorial Board of Genome Medicine

8. 五條堀 孝, 1, Editorial Board of OMICS A Journal of Integrative Biology

9. 五條堀 孝, 1, Editorial Board of Gene Therapy and Molecular Biology

10. 五條堀 孝, 1, Editorial Board of BMC Genomics

11. 五條堀 孝, 2, 紫綬褒章受章

12. 五條堀 孝, 1, 日本遺伝学会会長

13. 五條堀 孝, 1, 日本組織適合性学会理事



14. 五條堀 孝, 1, DNA鑑定学理事長
15. 五條堀 孝, 1, 遺伝学普及会常務理事

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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 Ib. Laboratory for Gene-Product Informatics Yasukazu Nakamura

#### RESEARCH ACTIVITIES

#### PUBLICATIONS

##### Papers

1. Ikeda S, Kaneko T, Okubo T, Rallos LE, Eda S, Mitsui H, Sato S, Nakamura Y, Tabata S, Minamisawa K. (2009) Development of a bacterial cell enrichment method and its application to the community analysis in soybean stems. , **Microb Ecol.** , 58 , 703 - 714
2. Hakoyama T, Niimi K, Watanabe H, Tabata R, Matsubara J, Sato S, Nakamura Y, Tabata S, Jichun L, Matsumoto T, Tatsumi K, Nomura M, Tajima S, Ishizaka M, Yano K, Imaizumi-Anraku H, Kawaguchi M, Kouchi H, Suganuma N. (2009) Host plant genome overcomes the lack of a bacterial gene for symbiotic nitrogen fixation. , **Nature** , 462 , 514 - 517
3. Kurihara, Y., Kaminuma, E., Matsui, A., Kawashima, M., Tanaka, M., Morosawa, T., Ishida, J., Mochizuki, Y., Shinozaki, K., Toyoda, T., Seki, M. (2009) Transcriptome Analyses Revealed Diverse Expression Changes in ago1 and hyl1 Arabidopsis Mutants , **Plant and Cell Physiology** , 50 , 1715 - 1717
4. Kurihara, Y., Matsui, A., Hanada, K., Kawashima, M., Ishida, J., Morosawa, T., Tanaka, M., Kaminuma, E., Mochizuki, Y., Matsushima, A., Toyoda, T., Shinozaki, K. and Seki, M. (2009) Genome-wide suppression of aberrant mRNA-like noncoding RNAs by NMD in Arabidopsis. , **Proc. Natl. Acad. Sci. USA** , 106 , 2453 - 2458

#### ORAL PRESENTATION

1. 神沼英里 Short Readデータ解析例の紹介 ライフサイエンス統合データベースセンター(DBCLS)セミナー DBCLS 8/4
2. 児玉悠一 DDBJ Read Archive 理化学研究所 横浜研究所 所内セミナー 理化学研究所 横浜研究所 8/6
3. 李慶範 遺伝子データバンクについて(DNA Data Bank of Japan, DDBJ) Korean Bioinformatics Center (KOBIC) セミナー 韓国・KOBIC 8/19
4. 児玉悠一 DDBJ Read Archive 第23回システムバイオロジー研究会 東京大学医科学研究所 6/26
5. 児玉悠一, 猿橋智, 五條堀孝, 舘野義男, 中村保一, 菅原秀明, 次世代シーケンサの出力データのためのアーカイブについて 第4回遺伝学研究所内部交流セミナー 遺伝学研究所 5/26
6. Eli Kaminuma, Yasukazu Nakamura, Toshihisa Takagi Constructing a high-throughput annotation pipeline of next generation sequencing reads 第4回遺伝学研究所内部交流セミナー 遺伝学研究所 5/26
7. 真島淳, 中村保一 DDBJ: 配列データのフロー ライフサイエンス統合データベースセンター(DBCLS)セミナー DBCLS

8. 神沼英里, 児玉悠一, 望月孝子, 猿橋智, 中村保一 DDBJにおける次世代シーケンサデータへの対応 ライフサイエンス統合データベースセンター(DBCLS)セミナー DBCLS
9. 児玉悠一 次世代シーケンサデータのDRA(DDBJ Read Archive)への登録 理化学研究所 横浜研究所 第1回シーケンサー利用技術講習会 12/17

## POSTER PRESENTATIONS

1. 児玉悠一, 猿橋智, 五條堀孝, 舘野義男, 中村保一, 菅原秀明 「次世代シーケンサの出力データのためのアーカイブについて」, 統合データベースプロジェクト シンポジウム 2009, 東京, 6/12
2. Hidemasa Bono, Eli Kaminuma, Yuichi Kodama, Yasukazu Nakamura, Kousaku Okubo, Toshihisa Takagi 「Systematic Organization of Gene Expression Data in Japan」, 12th International MGED Meeting, Phoenix, USA, 10/5-8
3. 猿橋智, 児玉悠一, 神沼英里, 五條堀孝, 舘野義男, 中村保一, 菅原秀明 「DDBJ Read Archiveのご紹介(新型シーケンサへの対応)」, バイオインフォマティクス推進センター事業(BIRD)第5回研究開発成果報告会, ,
4. 神沼英里, 中村保一 「DNA Data Bank of Japan (DDBJ) の新展開」, 情報・システム研究機構シンポジウム「情報とシステム2009」, ,
5. Takehide Kosuge, Yasumasa Shigemoto, Yoshikazu Kuwana, Hideaki Sugawara, 「Consecutive Update of the Microbial Genome Re-Annotation Database, GTPS」, The 20th International Conference on Genome Informatics, Tokyo, 12/14-16
6. Eli Kaminuma, Yuichi Kodama, Satoshi Saruhashi, Takeshi Konno, Takako Mochizuki, Hidemasa Bono, Hideaki Sugawara, Kousaku Okubo, Toshihisa Takagi, Yasukazu Nakamura, 「The 20th International Conference on Genome Informatics」, The 20th International Conference on Genome Informatics, 東京, 12/14-16
7. 児玉悠一, 猿橋智, 五條堀孝, 舘野義男, 神沼英里, 中村保一, 菅原秀明 「「DDBJ Read Archive」: 次世代シーケンサからの出力データのためのアーカイブ」, 第32回日本分子生物学会年会, 横浜, 12/9-12
8. 神沼英里, 児玉悠一, 大久保公策, 高木利久, 中村保一 「次世代シーケンサーのハイスループット・データ解析システム「DDBJ Short Read Annotation Pipeline」の構築」, 第32回日本分子生物学会年会, 横浜, 12/9-12
9. 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を用いた近縁イネゲノム配列データの評価」, 第32回日本分子生物学会年会, 横浜, 12/9-12
10. Eli Kaminuma, Toshifumi Nagata, Hajime Ohyanagi, Takako Mochizuki, Yasukazu Nakamura, Tomoyuki Aizu, Asao Fujiyama, Atsushi Toyoda, Nori Kurata 「Evaluation and efficiency of rice genome sequence reads from closely related species using the Next Generation Sequencer」, The 6th International Rice Genetics Symposium, Manila, 11/15-19
11. 中村保一, 神沼英里, 高木利久, 大久保公策 「DNA Data Bank of Japan (DDBJ)」, 統合データベースプロジェクト シンポジウム 2009, 東京, 6/12

## EDUCATION

1. 中村保一 第21回 DDBJing講習会 in 三島 三島

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I. CENTER FOR INFORMATION BIOLOGY AND DNA DATA BANK OF JAPAN  
I-c. Laboratory for Gene Function Research

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I-c. Laboratory for Gene Function Research  
Yoshio Tateno

## RESEARCH ACTIVITIES

### PUBLICATIONS

#### Papers

- 1 . Sugawara, H., Ikeo, K., Fukuchi, S., Gojobori, T., Tateno, Y. ( 2008 ) DDBJ dealing with mass data produced by the second generation sequencer , **Nucleic Acids Res** , 37 , 16 - 18
- 2 . Fukuchi, S., Homma, K., Sakamoto, S., Sugawara, H., Tateno, Y., Gojobori, T., Nishikawa, K. ( 2008 ) The GTOP database in 2009: updated content and novel features to expand and deepen insights into protein structures and functions. , **Nucleic Acids Res.** , 37 , 333 - 337
- 3 . Horiike, T., Miyata, D., Hamada, K., Saruhashi, S., Shinozawa, T., Kumar, S., Chakraborty, R., Komiyama, T., Tateno, Y. ( 2008 ) Phylogenetic construction of 17 bacterial phyla by new method and carefully selected orthologs , **Gene** , 429 , 59 - 64

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I. CENTER FOR INFORMATION BIOLOGY AND DNA DATA BANK OF JAPAN  
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I-e. Laboratory for Gene-Expression Analysis  
Kousaku Okubo

## RESEARCH ACTIVITIES

### PUBLICATIONS

#### Papers

1. Ogasawara O. and Okubo K. (2009) On theoretical models of gene expression evolution with random genetic drift and natural selection. , **PLoS One.** , , 0 - 0

### ORAL PRESENTATION

1. 大久保公策 「科学データは誰のものか」 統合データベース講習会 AJACSりんくう 大阪府立大学 11/6
2. 大久保公策 「アナトモグラフィー/BodyParts3Dの利用法」 統合データベース講習会 AJACS 本郷4 東京大学 4/17

### POSTER PRESENTATIONS

1. 大久保公策 「「デジタル時代のジレンマ」フォーラム」, 第32回日本分子生物学会, 横浜市, 12/10
2. 大久保公策 「「デジタル科学における独占と共有の賢いバランス」, 【CBRC】2009シンポジウム, 東京都, 12/4
3. 大久保公策 「 デジタル科学への最後のステップ 」, ライフサイエンス統合データベースセンター 2009シンポジウム「科学における情報の上手な権利化と共有化」, 東京都, 10/5
4. 大久保公策 「 先端技術と知財問題 」, 日本知財学会 第7回年次学術研究発表会, 東京都, 6/14
5. 大久保公策 「「オープン科学に望まれる制度とは？」, 農芸化学会, 福岡市, 3/28

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J. CENTER FOR FRONTIER RESEARCH  
J-c. Cell Architecture Laboratory

J. CENTER FOR FRONTIER RESEARCH  
J-c. Cell Architecture Laboratory  
Kimura Akatsuki

## RESEARCH ACTIVITIES

### PUBLICATIONS

#### Papers

1. 木村暁 (2009) 細胞核の大きさと場所はどのように決まるのか?, 実験医学(増刊), 27, 2779 - 2786
2. Hara, Y., and Kimura, A. (2009) Cell-size-dependent spindle elongation in the *Caenorhabditis elegans* early embryo, **Current Biology**, 19, 1549 - 1554

### ORAL PRESENTATION

1. Kimura, A. 細胞内中心体配置の数理モデル構築と検証 第一回「光塾」 情報通信研究機構 神戸研究所 8/15

### POSTER PRESENTATIONS

1. Kimura, A. 「シミュレーションを活用した線虫初期胚における細胞分裂の力学モデルの構築」, 日本発生生物学会秋季シンポジウム, 三島市, 11/28
2. Hara, Y. 「細胞サイズに合わせた細胞内構造体のサイズ制御」, 第一回「光塾」, 神戸, 8/15
3. Kimura, A. 「(非公開)」, 第8回核ダイナミクス研究会, 修善寺, 6/20
4. Hara, Y. 「線虫 *C. elegans* 初期胚を用いた細胞サイズ依存的な紡錘体伸長制御機構の解析」, 第8回核ダイナミクス研究会, 修善寺, 6/20
5. Niwayama, R. 「速度分布解析法・PIV法とシミュレーション法・粒子法を用いた線虫初期胚の流動解析」, 第8回核ダイナミクス研究会, 修善寺, 6/19
6. Hayashi, H. 「線虫初期胚を用いた核の大きさに影響する小胞体の構造的な役割」, 第8回核ダイナミクス研究会, 修善寺, 6/19
7. Kimura, K. 「線虫 *C. elegans* の初期胚における微小管とモータータンパク質に依存した核-中心体複合体の中央配置機構の解析」, 第8回核ダイナミクス研究会, 修善寺, 6/19
8. Koyama, H. 「細胞質分裂における細胞形状の測定とそれに基づいた理論モデル」, 第8回核ダイナミクス研究会, 修善寺, 6/19
9. Koyama, H. 「細胞質分裂において収縮環と細胞表層の力学は何ができるのか～細胞形状の定量化とそれに基づいた数理モデル」, 定量生物学の会・遺伝研キャラバン, 三島, 3/14
10. Kimura, K. 「線虫 *C. elegans* の初期胚における微小管とモータータンパク質に依存した中心体の中央配置機構の解析」, 定量生物学の会・遺伝研キャラバン, 三島, 3/13
11. Niwayama, R. 「quantification of cytoplasmic streaming and 3-dimensional mechanical simulation for understanding of cytoplasmic rheology」, 定量生物学の会・遺伝研キャラバン, 三島, 3/13

12. Hayashi, H. 「 *C. elegans* early embryoにおける核サイズの制御 」, 定量生物学の会・遺伝研キャラバン, 三島, 3/13
13. Hara, Y. 「 線虫初期胚を用いた細胞サイズ依存的な紡錘体伸長メカニズムの解析 」, 定量生物学の会・遺伝研キャラバン, 三島, 3/13
14. Kimura, A. 「 細胞内空間配置のデジタル化とデジタル細胞を用いた仮説の検証 」, 定量生物学の会第1回年会, 東京, 1/11
15. Hara, Y. 「 細胞サイズによる細胞内構造体の大きさ制御機構の解析 」, 定量生物学の会第1回年会, 東京, 1/11
16. Koyama, H. 「 細胞質分裂における細胞形状の実験的・理論的解析 ～収縮環仮説と細胞表層メカニクス～」, 定量生物学の会第1回年会, 東京, 1/11
17. Niwayama, R. 「 Elucidation of the physical property of the cytoplasm through comparison of in vivo flow dynamics with computer simulation 」, 定量生物学の会第1回年会, 東京, 1/11
18. Niwayama, R. 「 細胞質のレオロジーの理解のための線虫初期胚の細胞質流動の粒子法シミュレーション 」, ソフトマター物理勉強会, つくば, 9/2
19. Niwayama, R. 「 線虫 *C. elegans* 初期胚の細胞質流動の粒子法シミュレーションを通じた細胞質のレオロジーの理解 」, 機械工学会計算力学講演会, 金沢, 10/12
20. Kimura, A. 「 A model for cell-size-dependent spindle elongation in *C. elegans* embryo 」, The 9th NIBB-EMBL Symposium “Functional Imaging from Atoms to Organisms”, Okazaki, 4/21
21. Kimura, K. 「 A tug-of-war model for the centrosome centering in *Caenorhabditis elegans* early embryo 」, The 17th International *C. elegans* Meeting, Los Angeles, USA, 6/25
22. Hara, Y. 「 Cell-size-dependent spindle elongation in the *C. elegans* early embryo 」, The 17th International *C. elegans* Meeting, Los Angeles, USA, 6/25
23. Koyama, H. 「 Quantification and theoretical analyses of cell shape predict novel roles of cell surface and contractile ring in cytokinesis 」, The 17th International *C. elegans* Meeting, Los Angeles, USA, 6/25
24. Kimura, A. 「 細胞建築の力学的理解をめざして～線虫 *C. elegans* 初期胚を用いた紡錘体伸長の解析～」, 第19回日本数理生物学会年会, 東京, 9/9
25. Kimura, A. 「 線虫初期胚における中心体配置のオルガネラ綱引きモデル 」, 日本遺伝学会第81回大会, 松本, 9/18
26. Koyama, H. 「 細胞質分裂のリポソームタイプの力学モデル:細胞分裂を促進する力学要素とは? 」, 「細胞を創る」研究会 2.0, 東京, 10/2
27. Hara, Y. 「 細胞サイズに合わせた細胞内構造体のサイズ制御 」, 「細胞を創る」研究会 2.0, 東京, 10/2
28. Kimura, A. 「 線虫 *C. elegans* 胚を用いた細胞分裂のモデル構築 」, 第82回日本生化学会大会, 神戸, 10/21
29. Niwayama, R. 「 Quantification and 3D simulation reconstruction of the cytoplasmic streaming in *C. elegans* embryo to elucidate its mechanical basis 」, The 47th annual meeting of the biophysical society of Japan, 徳島, 10/30
30. Kimura, A. 「 Construction of cell architecture models focusing on centrosome positioning in *C. elegans* 」, Japanese Molecular Biology Pre-meeting Symposium 2009 ‘Interface between Nano-biology and Molecular biology’, 横浜, 12/8
31. Hayashi, H. 「 Live-cell imaging analysis of semi-open mitosis in *C. elegans* embryo 」, The 32nd Annual Meeting of the Molecular Biology Society of Japan, 横浜, 12/9
32. Kimura, K. 「 Centrosome centering requires dynein-dependent movement of intracellular organelles in *C. elegans* early embryo 」, The 32nd Annual Meeting of the Molecular Biology Society of Japan, 横浜, 12/9
33. Koyama, H. 「 A physical model for cytokinesis based on cell-surface bending elasticity in *C. elegans* embryonic cells 」, The 32nd Annual Meeting of the Molecular Biology Society of Japan, 横浜, 12/10
34. Kimura, A. 「 線虫胚を用いた染色体の細胞内配置ダイナミクスのモデル構築 」, The 32nd Annual Meeting of the Molecular Biology Society of Japan, 横浜, 12/10
35. Hara, Y. 「 Cell-size-dependent control of spindle size in *Caenorhabditis elegans* early embryo 」, The 32nd Annual Meeting of the Molecular Biology Society of Japan, 横浜, 12/11

## EDUCATION

1. 木村暁、杉村薫 定量生物学の会第一回キャラバン 三島 3/13-14
2. 原田昌彦、木村暁 第8回核ダイナミクス研究会 修善寺 6/18-20
3. 藤森俊彦、木村暁 細胞の分裂・分化と高次生命現象 第82回日本生化学会大会シンポジウム 神戸 10/21
4. 小布施力史、木村暁 遺伝情報場の構築とダイナミクスに迫る多角的アプローチ 第32回日本分子生物学会年会ワークショップ 横浜 12/10

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## RESEARCH ACTIVITIES

### PUBLICATIONS

#### Papers

1. Mang HG, Laluk KA, Parsons EP, Kosma DK, Cooper BR, Park HC, Abuqamar S, Bocconcelli C, Miyazaki S, Consiglio F, Chilosi G, Bohnert HJ, Bressan RA, Mengiste T and Jenks MA (2009) The Arabidopsis RESURRECTION1 Gene Regulates a Novel Antagonistic Interaction in Plant Defense to Biotrophs and Necrotrophs. , **Plant physiolog** , 151 , 290 - 305
2. Miyazaki S, Murata T, Sakurai-Ozato N, Kubo M, Demura T, Fukuda H and Hasebe M (2009) ANXUR1 and 2, sister genes to FERONIA/SIRENE are male factors for coordinated fertilization. , **Current Biology:11** , 19 , 1327 - 1331

### ORAL PRESENTATION

1. 宮崎さおり Analysis of receptor-kinases related in reproduction mechanisms; ANXUR1 and 2 are male factors controlling fertilization timing in Arabidopsis thaliana. GCOEセミナー 奈良先端大学 バイオサイエンス学科 11/5

### POSTER PRESENTATIONS

1. 野々村賢一、高嶋和哉、永口貢、中野睦子、宮尾安藝雄、廣近洋彦、倉田のり 「減数分裂への移行に必須であるイネ遺伝子の単離と機能解析」, 日本育種学会第115回講演会, つくば市, 3/26-28
2. 山木辰一郎、倉田のり、野々村賢一 「イネの胚珠分化に異常を示すosmads13変異体の解析」, 日本育種学会第116回講演会 育種学研究, 札幌市, 9/24-26
3. Ken-Ichi Nonomura, Yayoi Ueda, Mitsugu Eiguchi, Akio Miyao, Hirohiko Hirochika, Nori Kurata 「 Analysis of putative RNA-binding proteins promoting plant germ-cell development in rice 」, 9th International Plant Molecular Biology Congress , St.Louis , 10/25-30
4. Shinichiro Yamaki, Ken-Ichi Nonomura 「 What triggers the initiation of primordial plant germ cells? 」, 32nd Annual Meeting of Molocular Biology Society of Japan , 横浜市 , 12/9-12
5. Ken-Ichi Nonomura 「 Plant germ-cell development is supported by RNA-mediated genetic systems 」, The Opening Symposium of Plant Genomics and Breeding Institute , Soeul , 9/11
6. Ken-Ichi Nonomura 「 A rice gene regulating proper timing of the transition to meiosis 」, China-Japan Rice Developmental Biology Meeting , Hangzhou , 10/9
7. 野々村賢一 「 植物が減数分裂を同調化させるメカニズム 」, 第60回染色体学会年会, 松江市, 11/13

8. 野々村賢一、中野睦子、福地佐斗志、永口貢、宮尾安藝雄、廣近洋彦、倉田のり 「減数分裂の進行に必須のイネMEL2遺伝子はイネ科植物で保存されている」, 日本育種学会第116回講演会 育種学研究, 札幌市, 9/24-26
9. 上田健治、渡部奈穂美、高橋幸子、宮尾安藝雄、廣近洋彦、野々村賢一、倉田のり、我彦廣悦、井上正保 「イネ花粉突然変異体Tos0445の単離と解析」, 日本植物学会第73回大会, 山形市, 9/17-20
10. 野々村賢一、米田典央 「植物生殖細胞の初期発生過程における染色体ダイナミクス」, 日本遺伝学会第81回大会, 松本市, 9/16-18

## EDUCATION

1. Nonomura, K.I., Araki, T. The mechanism of stem-cell maintenance and differentiation during plant reproductive development Symposium, 32th Annual Meeting, The Molecular Biology Society of Japan Yokohama 12/10

## BOOK

1. 米田典央、野々村賢一 (2009) 減数分裂:相方を探すための植物染色体のダイナミックな挙動、特集「植物染色体の最前線」 生物の科学遺伝(5月号)特集I:植物染色体の最前線 **63(3)** 48 - 54
2. 野々村賢一 (2009) 受粉と受精 種子の科学とバイオテクノロジー 13 - 16
3. 倉田のり、野々村賢一 (2009) イネ 遺伝子資源・ゲノムリソースの現状と展望 バイオリソース&データベース活用術(細胞工学別冊) 190 - 192

## OTHERS

1. 山木辰一郎、倉田のり、野々村賢一, 2, 第116回講演会に本育種学会優秀発表賞「イネの胚珠分化に異常を示すosmads13変異体の解析」
2. 野々村賢一、高嶋和哉、中野睦子、永口貢、宮尾安藝雄、廣近洋彦、倉田のり, 2, 第115回講演会日本育種学会優秀発表賞 「減数分裂への移行に必須であるイネ遺伝子の単離と機能解析」

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- 1 . Oishi, A., Gengyo-Ando, K., Mitani, S., Mohri-Shiomi, A., Kimura, KD., Katsura, I. ( 2009 ) FLR-2, the glycoprotein hormone alpha subunit, is involved in the neural control of intestinal functions in *Caenorhabditis elegans*. , **Genes to Cells** , 14 , 1141 - 1154
- 2 . Ganley, A.R.D., Ide, S., Saka, K., and Kobayashi, T. ( 2009 ) The effect of replication initiation on gene amplification in the rDNA and its relationship to aging , **Mol. Cell** , 35 , 683 - 693

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- 1 . 谷田 勝教 , 2 , 文部科学大臣賞(平成21年度原子力・放射線安全管理功労表彰)

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Abe, G.	C-c Division of Molecular and Developmental Biology
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Abuqamar S	L EXPERIMENTAL FARM
Adachi, N.	E-b Division of Agricultural Genetics
Adachi,N.	E-a Division of Human Genetics
Adachi,Y.	H-e Gene Network Laboratory
Agetsuma, M.	C-c Division of Molecular and Developmental Biology
Ahsan B	G-b Genome biology Laboratory
Aiba, A.	F-a Mammalian Genetics Laboratory
Aida, Y.	D-a Division of Population Genetics
Aiko Sada	F-b Mammalian Development Laboratory
Aiko Sada.	F-b Mammalian Development Laboratory
Ailani D.	C-a Division of Developmental Genetics
Ailani, D.	C-a Division of Developmental Genetics
Aizawa, H.	C-c Division of Molecular and Developmental Biology
Aizu, T	G-c Comparative Genomics Laboratory
Aizu, T.	G-c Comparative Genomics Laboratory
Akagi, T.	A-a Division of Molecular Genetics
Akio Miyao	L EXPERIMENTAL FARM
Amakawa,Y.	E-a Division of Human Genetics
Amano T.	F-a Mammalian Genetics Laboratory
Amano, M.	A-a Division of Molecular Genetics
Amano, T.	D-a Division of Population Genetics F-a Mammalian Genetics Laboratory
Amemiya, Y.	H-b Molecular Biomechanism Laboratory
Aoki, T.	C-c Division of Molecular and Developmental Biology
Appelbaum, L.	C-c Division of Molecular and Developmental Biology
Arai,H.	H-e Gene Network Laboratory
Arakawa, K.	G-c Comparative Genomics Laboratory
Araki, H.	B-b Division of Microbial Genetics
Araki, J.	G-c Comparative Genomics Laboratory

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Araragi, N.	G-c Comparative Genomics Laboratory
Asakawa S	G-b Genome biology Laboratory
Asakawa, K.	C-c Division of Molecular and Developmental Biology
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Asaoka, M.	C-a Division of Developmental Genetics
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Atsushi Suzuki.	F-b Mammalian Development Laboratory
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Baek, MW.	C-c Division of Molecular and Developmental Biology
Ball, A.R. Jr.	A-a Division of Molecular Genetics
Bao, Y.C.	A-a Division of Molecular Genetics
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Bergmann, J.H.	A-a Division of Molecular Genetics
Bernauer, S.	C-c Division of Molecular and Developmental Biology
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Bocconelli C	L EXPERIMENTAL FARM
Bohnert HJ	L EXPERIMENTAL FARM
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Bossinger O	G-b Genome biology Laboratory
Bressan RA	L EXPERIMENTAL FARM
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Bunai, F.	A-a Division of Molecular Genetics
Bustamante C.	F-e Plant Genetics Laboratory
Catanesi, C.I.	F-c Mouse Genomics Resource Laboratory
Cavodeassi, F.	C-c Division of Molecular and Developmental Biology
Chakraborty, R.	I-c Laboratory for Gene Function Research
Charron, F.	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, GD	C-c Division of Molecular and Developmental Biology
Chen, GD.	C-c Division of Molecular and Developmental Biology

Chen, Y-C.	C-c Division of Molecular and Developmental Biology
Chen, YC.	C-c Division of Molecular and Developmental Biology
Cheng, C. H.	C-c Division of Molecular and Developmental Biology
Cheng, CH.	C-c Division of Molecular and Developmental Biology
Chilosi G	L EXPERIMENTAL FARM
Chu, CY.	C-c Division of Molecular and Developmental Biology
Chuma S.	F-b Mammalian Development Laboratory
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Chuma,S.	E-a Division of Human Genetics
Chumak N	E-b Division of Agricultural Genetics
Clemente, JC.	I-a Laboratory for DNA Data Analysis
Consiglio F	L EXPERIMENTAL FARM
Conte M	G-b Genome biology Laboratory
Conte,M.	G-a Genetic Informatics Laboratory
Cooper BR	L EXPERIMENTAL FARM
Culotti JG.	G-b Genome biology Laboratory
d'Adda di Fagagna F	C-c Division of Molecular and Developmental Biology
Dang. Z.	G-c Comparative Genomics Laboratory
Date, H.	G-c Comparative Genomics Laboratory
DeFalco, T.	C-a Division of Developmental Genetics
Defalco, T.	C-a Division of Developmental Genetics
Deflorian G	C-c Division of Molecular and Developmental Biology
Demura T	L EXPERIMENTAL FARM
Doi K.	F-e Plant Genetics Laboratory
Doi, K.	F-e Plant Genetics Laboratory
Drapeau, P.	C-c Division of Molecular and Developmental Biology
Dutta, NK.	C-c Division of Molecular and Developmental Biology
Earnshaw, W.C.	A-a Division of Molecular Genetics
Ebata, T.	G-c Comparative Genomics Laboratory F-a Mammalian Genetics Laboratory
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Eli Kaminuma	I-b Laboratory for Gene-Product Informatics
Endo, T.	I-a Laboratory for DNA Data Analysis
Enju, A.	G-c Comparative Genomics Laboratory
Esaki, M.	C-c Division of Molecular and Developmental Biology
Esmaeili B	G-b Genome biology Laboratory
Ezawa,K.	D-a Division of Population Genetics
FURUYA, K.	F-f Microbial Genetics Laboratory
Feldon,J.	C-b Division of Neurogenetics
Feng, J.	A-a Division of Molecular Genetics
Fire A	G-b Genome biology Laboratory
Fu Y	E-b Division of Agricultural Genetics
Fujii, A.	A-a Division of Molecular Genetics
Fujikawa, K.	D-a Division of Population Genetics

Fujisawa, H.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory
Fujisawa,N.	H-e Gene Network Laboratory
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Fukuda H	L EXPERIMENTAL FARM
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Fukumaki, Y.	G-c Comparative Genomics Laboratory
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Furuya, K.	F-f Microbial Genetics Laboratory
Galko, M. J.	F-g Invertebrate Genetics Laboratory
Ganley, A.R.D.	N Technical Section
Ganly, A.R.D.	B-a Division of Cytogenetics
Gaudet J	G-b Genome biology Laboratory
Gebhart, N.	C-c Division of Molecular and Developmental Biology
Gengyo-Ando, K.	N Technical Section
Gojobori T.	I-a Laboratory for DNA Data Analysis
Gojobori, T.	C-a Division of Developmental Genetics E-c Division of Brain Function I-a Laboratory for DNA Data Analysis I-c Laboratory for Gene Function Research
Gojobori,T.	D-a Division of Population Genetics
Goszczynski B	G-b Genome biology Laboratory
Gothilf, Y.	C-c Division of Molecular and Developmental Biology
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Goto, J.	G-c Comparative Genomics Laboratory
Goto, M.	C-c Division of Molecular and Developmental Biology
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Gough, C.	I-a Laboratory for DNA Data Analysis
Grampp,T.	C-b Division of Neurogenetics
Gu SG	G-b Genome biology Laboratory
H & Namikawa	C-a Division of Developmental Genetics
Habara, O.	F-g Invertebrate Genetics Laboratory

Hakoyama T	I-b Laboratory for Gene-Product Informatics
Hamada, K.	I-c Laboratory for Gene Function Research
Han, HW.	C-c Division of Molecular and Developmental Biology
Hanada, K.	I-b Laboratory for Gene-Product Informatics
Hanaoka, F.	H-a Biological Macromolecules
Hans, S.	C-c Division of Molecular and Developmental Biology
Hansen D.	G-b Genome biology Laboratory
Hara, Y.	J-c Cell Architecture Laboratory
Harihara,S.	D-a Division of Population Genetics
Harushima, Y.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory
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Hatakeyama, A.	H-b Molecular Biomechanism Laboratory
Hatori, T.	A-a Division of Molecular Genetics
Hattori, M.	G-c Comparative Genomics Laboratory
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Hattori,E.	D-a Division of Population Genetics
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Hayakawa,S.	D-a Division of Population Genetics
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Hayashizaki, Y.	G-c Comparative Genomics Laboratory
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Hennig C	G-b Genome biology Laboratory
Hideaki Sugawara	I-b Laboratory for Gene-Product Informatics
Hidemasa Bono	I-b Laboratory for Gene-Product Informatics
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Hirata, T.	E-c Division of Brain Function
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Hwang, SP.	C-c Division of Molecular and Developmental Biology
Hwang, SP. L.	C-c Division of Molecular and Developmental Biology
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Ikeo, K..	I-a Laboratory for DNA Data Analysis
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Imuta Y.	F-b Mammalian Development Laboratory
Inagaki S	E-b Division of Agricultural Genetics
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Inoue, M.	A-a Division of Molecular Genetics
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Jones SJ	G-b Genome biology Laboratory
Joshi, R.	C-a Division of Developmental Genetics
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Kage, Y.	A-a Division of Molecular Genetics
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Kajikawa,M.	E-a Division of Human Genetics
Kajino, K.	G-c Comparative Genomics Laboratory
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Kakutani T	E-b Division of Agricultural Genetics
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kanehisa, M.	G-c Comparative Genomics Laboratory
Kaneko, H.	C-c Division of Molecular and Developmental Biology
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Kazuhiro Maeshima	H-a Biological Macromolecules
Ken-Ichi Nonomura	L EXPERIMENTAL FARM
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kido, N.	G-c Comparative Genomics Laboratory
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Kishimoto, Y.	C-c Division of Molecular and Developmental Biology
Kiso M.	F-b Mammalian Development Laboratory
Kitaguchi, T.	C-c Division of Molecular and Developmental Biology
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Kitayama,J.	E-a Division of Human Genetics
Kiyama, H.	E-c Division of Brain Function
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Kobayashi, T.	B-a Division of Cytogenetics I-a Laboratory for DNA Data Analysis
Koga A	G-b Genome biology Laboratory
Kohara Y	G-b Genome biology Laboratory
Kohara Y.	G-b Genome biology Laboratory
Kohara, Y	G-c Comparative Genomics Laboratory

Kohara, Y.	G-c Comparative Genomics Laboratory F-a Mammalian Genetics Laboratory
Kohara, Y.	G-a Genetic Informatics Laboratory
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Kojidani, T.	A-a Division of Molecular Genetics
Kokubu, C.	C-c Division of Molecular and Developmental Biology
Komata, M.	B-b Division of Microbial Genetics
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Kousaku Okubo	I-b Laboratory for Gene-Product Informatics
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Koyama, H.	E-a Division of Human Genetics
Koyanagi, S.	A-a Division of Molecular Genetics
Krause MW	G-b Genome biology Laboratory
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Kryukov, K.	D-a Division of Population Genetics I-a Laboratory for DNA Data Analysis
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Kujime, Y.	G-c Comparative Genomics Laboratory
Kukimoto-Niino, M.	A-a Division of Molecular Genetics
Kuma, K.	G-c Comparative Genomics Laboratory
Kumar, S.	I-a Laboratory for DNA Data Analysis I-c Laboratory for Gene Function Research
Kunieda, T.	G-c Comparative Genomics Laboratory
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Kurimoto, K.	E-a Division of Human Genetics
Kuroki, Y.	G-c Comparative Genomics Laboratory
Kurusu, M.	H-e Gene Network Laboratory
Kuwahara, H.	G-c Comparative Genomics Laboratory
Kuwahara, h.	G-c Comparative Genomics Laboratory
Kylie Lopes Floro	F-b Mammalian Development Laboratory
Lal, P.	C-c Division of Molecular and Developmental Biology
Laluk KA	L EXPERIMENTAL FARM
Lampson, M.A.	A-a Division of Molecular Genetics
Lanfrancone L	C-c Division of Molecular and Developmental Biology
Langenhan T	G-b Genome biology Laboratory
Lee, HK.	C-c Division of Molecular and Developmental Biology
Lee, HY.	C-c Division of Molecular and Developmental Biology
Lee, J.	E-a Division of Human Genetics
Li, Y.	B-b Division of Microbial Genetics
Liao, M.	C-c Division of Molecular and Developmental Biology
Lieschke, G.J.	C-c Division of Molecular and Developmental Biology
Lionikas, A.	F-c Mouse Genomics Resource Laboratory
Liu, D.	A-a Division of Molecular Genetics
Liu, QX.	C-a Division of Developmental Genetics I-a Laboratory for DNA Data Analysis
Machate, A.	C-c Division of Molecular and Developmental Biology
Maeda, K.	F-g Invertebrate Genetics Laboratory
Maeshima, K.	H-a Biological Macromolecules
Makoto Kiso.	F-b Mammalian Development Laboratory
Mang HG	L EXPERIMENTAL FARM
Mano, S.	I-a Laboratory for DNA Data Analysis
Marin, W.	C-c Division of Molecular and Developmental Biology
Maro, G.	C-c Division of Molecular and Developmental Biology
Maro, G.S.	C-c Division of Molecular and Developmental Biology
Marra MA	G-b Genome biology Laboratory
Maruyama, Y.	H-e Gene Network Laboratory
Masuda, A.	F-d Model Fish Genomics Resource
Masuzaki, S.	G-c Comparative Genomics Laboratory
Mathieu O	E-b Division of Agricultural Genetics
Matsubara J	I-b Laboratory for Gene-Product Informatics
Matsuda S.	F-b Mammalian Development Laboratory
Matsui, A.	I-b Laboratory for Gene-Product Informatics
Matsumoto T	I-b Laboratory for Gene-Product Informatics
Matsumoto T.	F-e Plant Genetics Laboratory
Matsumoto, J.	G-c Comparative Genomics Laboratory
Matsumoto, K.	C-c Division of Molecular and Developmental Biology

Matsumoto, R.	I-a Laboratory for DNA Data Analysis
Matsunaga, N.	A-a Division of Molecular Genetics
Matsunami M.	D-a Division of Population Genetics
Matsuoka, S.	C-a Division of Developmental Genetics
Matsushima K	G-b Genome biology Laboratory
Matsushima, A.	I-b Laboratory for Gene-Product Informatics
Matsuya, A.	I-a Laboratory for DNA Data Analysis
McCouch S.	F-e Plant Genetics Laboratory
McGhee JD	G-b Genome biology Laboratory
Mekada, K.	F-a Mammalian Genetics Laboratory
Mello CC	G-b Genome biology Laboratory
Mengiste T	L EXPERIMENTAL FARM
Merz DC	G-b Genome biology Laboratory
Mestek L	G-b Genome biology Laboratory
Mignot, E.	C-c Division of Molecular and Developmental Biology
Mineta, K.	I-a Laboratory for DNA Data Analysis
Minezaki, Y.	I-a Laboratory for DNA Data Analysis
Minnema SE	G-b Genome biology Laboratory
Minoshima ,Y.	A-a Division of Molecular Genetics
Mita, A.	F-a Mammalian Genetics Laboratory
Mitani, K.	F-d Model Fish Genomics Resource
Mitani, S.	N Technical Section
Mitsugu Eiguchi	L EXPERIMENTAL FARM
Mitsui, K.	F-d Model Fish Genomics Resource
Mitsui,J.	G-c Comparative Genomics Laboratory
Mitsuyama, T.	G-c Comparative Genomics Laboratory
Miura A	E-b Division of Agricultural Genetics
Miura, M.	C-c Division of Molecular and Developmental Biology
Miyamoto R	G-b Genome biology Laboratory
Miyamoto T	G-b Genome biology Laboratory
Miyanari,Y.	E-a Division of Human Genetics
Miyao, A.	F-e Plant Genetics Laboratory
Miyasaka, N.	C-c Division of Molecular and Developmental Biology
Miyashita, N.	F-a Mammalian Genetics Laboratory
Miyata, D.	I-c Laboratory for Gene Function Research
Miyawaki, A.	C-c Division of Molecular and Developmental Biology
Miyazaki S	L EXPERIMENTAL FARM
Miyazaki, Y.	F-e Plant Genetics Laboratory
Miyoshi,H.	E-a Division of Human Genetics
Mizoguchi, T.	C-c Division of Molecular and Developmental Biology
Mizushina, Y.	D-a Division of Population Genetics F-a Mammalian Genetics Laboratory
Mizuta, I.	G-c Comparative Genomics Laboratory
Mizuta, Y.	F-e Plant Genetics Laboratory
Mochida, K.	G-c Comparative Genomics Laboratory
Mochiduki, T.	E-b Division of Agricultural Genetics
Mochizuki T	G-b Genome biology Laboratory

Mochizuki, T.	G-c Comparative Genomics Laboratory F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory
Mochizuki, Y.	I-b Laboratory for Gene-Product Informatics
Moerman DG	G-b Genome biology Laboratory
Mohler,H.	C-b Division of Neurogenetics
Mohri-Shiomi, A.	N Technical Section
Mori, H.	F-f Microbial Genetics Laboratory
Mori, R.	C-c Division of Molecular and Developmental Biology
Mori,C.	A-a Division of Molecular Genetics
Morimoto, K.	C-c Division of Molecular and Developmental Biology
Morishita S.	G-b Genome biology Laboratory
Morita, R.	C-c Division of Molecular and Developmental Biology
Moriwaki, K.	F-a Mammalian Genetics Laboratory
Morosawa, T.	I-b Laboratory for Gene-Product Informatics
Mosiolek M	E-b Division of Agricultural Genetics
Motoyama, A.	G-c Comparative Genomics Laboratory
Mourrain, P.	C-c Division of Molecular and Developmental Biology
Munakata, K.	C-c Division of Molecular and Developmental Biology
Murakami S.	H-d Biomolecular Structure Laboratory
Murakami, K.	I-a Laboratory for DNA Data Analysis
Muramatsu, S.	B-b Division of Microbial Genetics
Murata T	L EXPERIMENTAL FARM
Murata, M.	G-c Comparative Genomics Laboratory
Murata, T.	G-c Comparative Genomics Laboratory
Murayama, A.	H-a Biological Macromolecules
Muto, A.	C-c Division of Molecular and Developmental Biology
Na, YR.	C-c Division of Molecular and Developmental Biology
Nagata, T.	G-c Comparative Genomics Laboratory
Nakadate, Y.	E-c Division of Brain Function
Nakade, K.	G-c Comparative Genomics Laboratory
Nakagawa, S.	I-a Laboratory for DNA Data Analysis
Nakajima,M.	D-a Division of Population Genetics
Nakamura M	E-b Division of Agricultural Genetics
Nakamura Y	I-b Laboratory for Gene-Product Informatics
Nakamura, A.	F-g Invertebrate Genetics Laboratory
Nakamura, H.	C-c Division of Molecular and Developmental Biology
Nakamura, M.	F-a Mammalian Genetics Laboratory
Nakamura, N.	C-c Division of Molecular and Developmental Biology
Nakamura, Y.	G-c Comparative Genomics Laboratory
Nakao, R.	G-c Comparative Genomics Laboratory
Nakatani Y	G-b Genome biology Laboratory
Nakatsuji, N.	G-c Comparative Genomics Laboratory
Nakatsuji,N.	E-a Division of Human Genetics
Nakayama, R.	C-c Division of Molecular and Developmental Biology
Nakayama, T.	E-b Division of Agricultural Genetics
Nakayama,M.	H-e Gene Network Laboratory



Nakayana,M.	H-e Gene Network Laboratory
Nakayashiki,N.	D-a Division of Population Genetics
Namikawa, H. &	C-a Division of Developmental Genetics
Narita T	G-b Genome biology Laboratory
Naruse K	G-b Genome biology Laboratory
Natsume, T.	C-c Division of Molecular and Developmental Biology
Negishi,M.	C-b Division of Neurogenetics
Niimi K	I-b Laboratory for Gene-Product Informatics
Niki, H.	F-f Microbial Genetics Laboratory
Nishi, A.	F-c Mouse Genomics Resource Laboratory
Nishida, Y.	G-c Comparative Genomics Laboratory
Nishida,M.	D-a Division of Population Genetics
Nishihara, S.	F-g Invertebrate Genetics Laboratory
Nishijima, H.	E-b Division of Agricultural Genetics
Nishikawa, K.	C-c Division of Molecular and Developmental Biology I-a Laboratory for DNA Data Analysis I-c Laboratory for Gene Function Research
Nishikawa, K..	I-a Laboratory for DNA Data Analysis
Nishimukai,H.	D-a Division of Population Genetics
Nishimura, A.	D-a Division of Population Genetics
Nishimura, K.	A-a Division of Molecular Genetics
Nishino, Y.	H-a Biological Macromolecules
Nishinoue, K.	F-g Invertebrate Genetics Laboratory
Nishiwaki K	G-b Genome biology Laboratory
Niwayama, R.	J-c Cell Architecture Laboratory
Nobuo Sasaki.	F-b Mammalian Development Laboratory
Noda,R.	D-a Division of Population Genetics
Nogata K	G-b Genome biology Laboratory
Noguchi, H.	G-c Comparative Genomics Laboratory
Nohno, T.	F-a Mammalian Genetics Laboratory
Nomura M	I-b Laboratory for Gene-Product Informatics
Nomura, Y.	A-a Division of Molecular Genetics
Nonomura, K.	C-c Division of Molecular and Developmental Biology
Nori Kurata	L EXPERIMENTAL FARM
Noro, C.	F-a Mammalian Genetics Laboratory
Nosaka, T.	A-a Division of Molecular Genetics
Oates, A.C.	C-c Division of Molecular and Developmental Biology
Obata, Y.	G-c Comparative Genomics Laboratory F-a Mammalian Genetics Laboratory
Ogasawara O.	I-e Laboratory for Gene-Expression Analysis
Ogawa M	G-b Genome biology Laboratory
Ogawa, H.	A-a Division of Molecular Genetics
Oginuma M.	F-b Mammalian Development Laboratory
Ogura, S-i.	E-b Division of Agricultural Genetics
Ohhata,T.	E-a Division of Human Genetics
Ohishi K	G-b Genome biology Laboratory

Ohmi, S.	G-c Comparative Genomics Laboratory
Ohyama M.	F-b Mammalian Development Laboratory
Ohyanagi, H.	G-c Comparative Genomics Laboratory
Oishi, A.	N Technical Section
Oka, A.	F-a Mammalian Genetics Laboratory I-a Laboratory for DNA Data Analysis
Okabe, A.	F-g Invertebrate Genetics Laboratory
Okabe,M.	H-e Gene Network Laboratory
Okada N.	G-b Genome biology Laboratory
Okada, M.	A-a Division of Molecular Genetics
Okada, S.	G-c Comparative Genomics Laboratory
Okamoto, H.	C-c Division of Molecular and Developmental Biology
Okano H.	F-b Mammalian Development Laboratory
Okano HJ.	F-b Mammalian Development Laboratory
Okano,M.	E-a Division of Human Genetics
Okawa, K.	A-a Division of Molecular Genetics
Okazawa,H.	H-e Gene Network Laboratory
Oku, Y.	G-c Comparative Genomics Laboratory
Okubo K.	I-e Laboratory for Gene-Expression Analysis
Okuda,T.	H-e Gene Network Laboratory
Onishi, K.	G-c Comparative Genomics Laboratory
Ono, F.	C-c Division of Molecular and Developmental Biology
Ono, T.	E-b Division of Agricultural Genetics
Ookata, K.	C-c Division of Molecular and Developmental Biology
Oota, S.	F-a Mammalian Genetics Laboratory
Oshima N.	F-b Mammalian Development Laboratory
Ozaki, M.	D-a Division of Population Genetics
Ozaki, Y.	F-d Model Fish Genomics Resource
Ozato K	G-b Genome biology Laboratory
Ozawa, A.	I-a Laboratory for DNA Data Analysis
Padhukasahasram B.	F-e Plant Genetics Laboratory
Park HC	L EXPERIMENTAL FARM
Park, JH.	C-c Division of Molecular and Developmental Biology
Park, SH.	C-c Division of Molecular and Developmental Biology
Parsons EP	L EXPERIMENTAL FARM
Pezzimenti F	C-c Division of Molecular and Developmental Biology
Phipps,M.	D-a Division of Population Genetics
Picker, A.	C-c Division of Molecular and Developmental Biology
Potter,C.	H-e Gene Network Laboratory
Prenosil,G.	C-b Division of Neurogenetics
Promel S	G-b Genome biology Laboratory
Rie Saba	F-b Mammalian Development Laboratory
Rie Saba.	F-b Mammalian Development Laboratory
Ruchaud, S.	A-a Division of Molecular Genetics
Ruddle, FH.	D-a Division of Population Genetics
Russ AP.	G-b Genome biology Laboratory

Ruzanov P	G-b Genome biology Laboratory
Saba R.	F-b Mammalian Development Laboratory
Sada A.	F-b Mammalian Development Laboratory
Sado, T.	G-c Comparative Genomics Laboratory
Sado, Y.	F-d Model Fish Genomics Resource
Sado,T.	E-a Division of Human Genetics
Saga Y	F-b Mammalian Development Laboratory
Saga Y.	F-b Mammalian Development Laboratory
Sagai, T.	D-a Division of Population Genetics F-a Mammalian Genetics Laboratory
Saigo, K.	F-g Invertebrate Genetics Laboratory
Saito T	G-b Genome biology Laboratory
Saito, K.	F-d Model Fish Genomics Resource
Saitoh, K.	B-b Division of Microbial Genetics
Saitou N.	D-a Division of Population Genetics
Saitou, N.	D-a Division of Population Genetics
Saitou,M.	E-a Division of Human Genetics
Saitou,N.	D-a Division of Population Genetics
Saka, K.	N Technical Section B-a Division of Cytogenetics
Sakaguchi, T.	E-b Division of Agricultural Genetics F-a Mammalian Genetics Laboratory F-c Mouse Genomics Resource Laboratory F-e Plant Genetics Laboratory
Sakahara, M.	F-a Mammalian Genetics Laboratory
Sakai, N.	F-d Model Fish Genomics Resource
Sakaki, Y.	G-c Comparative Genomics Laboratory
Sakamoto, S.	I-a Laboratory for DNA Data Analysis I-c Laboratory for Gene Function Research
Sakaniwa, S.	G-a Genetic Informatics Laboratory
Sakate, R.	I-a Laboratory for DNA Data Analysis
Sakaue-Sawano, A.	C-c Division of Molecular and Developmental Biology
Sakurai, M.	G-c Comparative Genomics Laboratory
Sakurai-Ozato N	L EXPERIMENTAL FARM
Sanbonmatsu, R.	I-a Laboratory for DNA Data Analysis
Santoriello C	C-c Division of Molecular and Developmental Biology
Sarai,Y.	D-a Division of Population Genetics
Saruhashi, S.	I-c Laboratory for Gene Function Research
Sasaki A	G-b Genome biology Laboratory
Sasaki S	G-b Genome biology Laboratory
Sasaki, H.	G-c Comparative Genomics Laboratory
Sasaki,H.	E-a Division of Human Genetics
Satake, T.	G-c Comparative Genomics Laboratory
Sato K	G-b Genome biology Laboratory
Sato S	I-b Laboratory for Gene-Product Informatics
Sato, K.	G-a Genetic Informatics Laboratory
Sato, T.	A-a Division of Molecular Genetics

Sato, Y.	I-a Laboratory for DNA Data Analysis
Sato, Y.	D-a Division of Population Genetics
Satoshi Saruhashi	I-b Laboratory for Gene-Product Informatics
Saze H	E-b Division of Agricultural Genetics
Schnabel R	G-b Genome biology Laboratory
Schoft V	E-b Division of Agricultural Genetics
Seino, H.	A-c Molecular Mechanism Laboratory
Seki M	G-b Genome biology Laboratory
Seki, M.	G-c Comparative Genomics Laboratory I-b Laboratory for Gene-Product Informatics
Seki, M.	G-a Genetic Informatics Laboratory
Seok SH.	C-c Division of Molecular and Developmental Biology
Seok, SH.	C-c Division of Molecular and Developmental Biology
Sera, M.	I-a Laboratory for DNA Data Analysis
Setoguchi, Y.	F-g Invertebrate Genetics Laboratory
Shang, W.	G-c Comparative Genomics Laboratory
Sharma, A.	E-b Division of Agricultural Genetics
Shiba D	G-b Genome biology Laboratory
Shibahara, K-i.	E-b Division of Agricultural Genetics
Shibahara, S.	I-a Laboratory for DNA Data Analysis
Shibahara, K.	E-b Division of Agricultural Genetics
Shibata, H.	G-c Comparative Genomics Laboratory
Shibata, T.	G-c Comparative Genomics Laboratory
Shidahara, Y.	G-a Genetic Informatics Laboratory
Shigeta M.	F-b Mammalian Development Laboratory
Shigeyoshi, Y.	C-c Division of Molecular and Developmental Biology
Shikata, K.	E-c Division of Brain Function
Shimada A	G-b Genome biology Laboratory
Shimada, MK.	I-a Laboratory for DNA Data Analysis
Shimada, M.K.	D-a Division of Population Genetics
Shimizu	C-a Division of Developmental Genetics
Shimizu A.	F-b Mammalian Development Laboratory
Shimizu N	G-b Genome biology Laboratory
Shimizu, H.	C-a Division of Developmental Genetics
Shimizu, H.	C-a Division of Developmental Genetics
Shin-I T	G-b Genome biology Laboratory
Shin-I, T.	G-c Comparative Genomics Laboratory
Shin-I, t.	G-c Comparative Genomics Laboratory
Shin-i, T.	F-a Mammalian Genetics Laboratory
Shin-i, T.	G-a Genetic Informatics Laboratory
Shinichiro Yamaki	L EXPERIMENTAL FARM
Shinozaki K	G-b Genome biology Laboratory
Shinozaki, K.	G-c Comparative Genomics Laboratory I-b Laboratory for Gene-Product Informatics
Shinozaki, K.	G-a Genetic Informatics Laboratory
Shinozawa, T.	I-c Laboratory for Gene Function Research

Shinya, M.	F-d Model Fish Genomics Resource
Shiomi, D.	F-f Microbial Genetics Laboratory
Shirahige, K.	B-b Division of Microbial Genetics
Shiraki, T.	C-c Division of Molecular and Developmental Biology
Shirakihara, Y.	H-d Biomolecular Structure Laboratory
Shiroishi T.	F-b Mammalian Development Laboratory
Shiroishi, T.	F-a Mammalian Genetics Laboratory F-c Mouse Genomics Resource Laboratory F-e Plant Genetics Laboratory I-a Laboratory for DNA Data Analysis
Shirouzu, M.	A-a Division of Molecular Genetics
Shiwaku,H.	H-e Gene Network Laboratory
Siegfrid, K.R.	F-d Model Fish Genomics Resource
Singer,P.	C-b Division of Neurogenetics
Slusarz L	E-b Division of Agricultural Genetics
Smith, S.J.	C-c Division of Molecular and Developmental Biology
Sone,M.	H-e Gene Network Laboratory
Sonoda, E.	A-a Division of Molecular Genetics
Stanley-Troy Artap	F-b Mammalian Development Laboratory
Suetake,I.	E-a Division of Human Genetics
Sugano S	G-b Genome biology Laboratory
Sugano, S.	G-c Comparative Genomics Laboratory
Suganuma N.	I-b Laboratory for Gene-Product Informatics
Sugawara, H.	G-a Genetic Informatics Laboratory I-a Laboratory for DNA Data Analysis I-c Laboratory for Gene Function Research
Sugimoto, C.	G-c Comparative Genomics Laboratory
Sugimoto, H.	F-c Mouse Genomics Resource Laboratory
Sugiyama, M.	C-c Division of Molecular and Developmental Biology
Sugiyama,Y.	D-a Division of Population Genetics
Sumiyama K.	D-a Division of Population Genetics
Sumiyama, K.	C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics F-a Mammalian Genetics Laboratory
Suster, M.L.	C-c Division of Molecular and Developmental Biology
Suster, ML.	C-c Division of Molecular and Developmental Biology D-a Division of Population Genetics
Suzuki A.	F-b Mammalian Development Laboratory
Suzuki D.	F-a Mammalian Genetics Laboratory
Suzuki H.	F-b Mammalian Development Laboratory
Suzuki T.	H-d Biomolecular Structure Laboratory
Suzuki Y	G-b Genome biology Laboratory
Suzuki, A.	A-a Division of Molecular Genetics
Suzuki, H.	I-a Laboratory for DNA Data Analysis
Suzuki, I.	E-c Division of Brain Function
Suzuki, T.	G-c Comparative Genomics Laboratory
Suzuki, Y.	I-a Laboratory for DNA Data Analysis

Suzuki,E	H-e Gene Network Laboratory
Suzuki,E.	H-e Gene Network Laboratory
Suzuki,J.	E-a Division of Human Genetics
Suzuki. Y.	G-c Comparative Genomics Laboratory
Sweeney M.	F-e Plant Genetics Laboratory
Tabata R	I-b Laboratory for Gene-Product Informatics
Tabata S	I-b Laboratory for Gene-Product Informatics
Tachibana, M.	I-a Laboratory for DNA Data Analysis
Tajima S	I-b Laboratory for Gene-Product Informatics
Tajima,S.	E-a Division of Human Genetics
Takada, T.	F-a Mammalian Genetics Laboratory F-e Plant Genetics Laboratory
Takahashi, A.	D-a Division of Population Genetics F-c Mouse Genomics Resource Laboratory
Takahashi, K.	F-g Invertebrate Genetics Laboratory
Takahashi, K.R.	D-a Division of Population Genetics
Takahashi, M.	D-a Division of Population Genetics
Takahashi, N.	A-a Division of Molecular Genetics
Takahashi, Y.	G-c Comparative Genomics Laboratory H-a Biological Macromolecules C-c Division of Molecular and Developmental Biology
Takahashi,M.	D-a Division of Population Genetics
Takahoko, M.	C-c Division of Molecular and Developmental Biology
Takako Mochizuki	I-b Laboratory for Gene-Product Informatics
Takakubo, H.	C-c Division of Molecular and Developmental Biology
Takami, Y.	E-b Division of Agricultural Genetics
Takano-Kai N.	F-e Plant Genetics Laboratory
Takano-Shimizu, T	D-a Division of Population Genetics
Takano-Shimizu, T.	D-a Division of Population Genetics
Takano-Shimizu,T.	D-a Division of Population Genetics
Takano-shimizu, T.	D-a Division of Population Genetics
Takashi Gojobori	I-a Laboratory for DNA Data Analysis
Takashima,S.	E-a Division of Human Genetics
Takata, H.	E-b Division of Agricultural Genetics
Takata,H.	E-b Division of Agricultural Genetics
Takeda H	G-b Genome biology Laboratory
Takeda K	G-b Genome biology Laboratory
Takeda, J.	C-c Division of Molecular and Developmental Biology
Takeda, S.	A-a Division of Molecular Genetics F-a Mammalian Genetics Laboratory F-d Model Fish Genomics Resource
Takeda,K.	G-a Genetic Informatics Laboratory
Takeda,S.	E-a Division of Human Genetics
Takehashi,M.	E-a Division of Human Genetics
Takehide Kosuge	I-b Laboratory for Gene-Product Informatics
Takemoto, A.	H-a Biological Macromolecules
Takemura, M.	F-g Invertebrate Genetics Laboratory

Takenaka,O.	D-a Division of Population Genetics
Takeshi Konno	Ib Laboratory for Gene-Product Informatics
Takeshima,S.	D-a Division of Population Genetics
Takeuchi, M.	C-c Division of Molecular and Developmental Biology
Takeuchi,S.	C-b Division of Neurogenetics
Takisawa, H.	A-a Division of Molecular Genetics
Tamai KK	G-b Genome biology Laboratory
Tamaru H	E-b Division of Agricultural Genetics
Tamura, K.	C-c Division of Molecular and Developmental Biology
Tamura, M.	D-a Division of Population Genetics F-a Mammalian Genetics Laboratory
Tamura,T.	H-e Gene Network Laboratory
Tanabe, H.	F-a Mammalian Genetics Laboratory
Tanaiguchi, Y.	F-d Model Fish Genomics Resource
Tanaka S.	F-b Mammalian Development Laboratory
Tanaka T.	F-b Mammalian Development Laboratory
Tanaka, H.	B-b Division of Microbial Genetics
Tanaka, I.	H-d Biomolecular Structure Laboratory
Tanaka, K.	G-c Comparative Genomics Laboratory
Tanaka, K.M.	D-a Division of Population Genetics
Tanaka, M.	Ib Laboratory for Gene-Product Informatics C-c Division of Molecular and Developmental Biology
Tanaka, S.	F-a Mammalian Genetics Laboratory B-b Division of Microbial Genetics
Tanaka, T.	F-g Invertebrate Genetics Laboratory B-b Division of Microbial Genetics
Tanaka,S.	B-b Division of Microbial Genetics
Tanaka,Y.	E-a Division of Human Genetics
Taniguchi, T.	G-c Comparative Genomics Laboratory
Tanikawa, H.	H-d Biomolecular Structure Laboratory
Tanino, S.	C-c Division of Molecular and Developmental Biology
Tateno, Y.	I-a Laboratory for DNA Data Analysis I-c Laboratory for Gene Function Research
Tatsumi K	Ib Laboratory for Gene-Product Informatics
Tatsuta, T.	D-a Division of Population Genetics
Taya, C.	I-a Laboratory for DNA Data Analysis
Terajima, .	G-c Comparative Genomics Laboratory
To, H.	A-a Division of Molecular Genetics
Tobisawa Y.	F-b Mammalian Development Laboratory
Toda, T.	G-c Comparative Genomics Laboratory
Tokumoto, M.	F-d Model Fish Genomics Resource
Toshihisa Takagi	Ib Laboratory for Gene-Product Informatics
Totoki, Y.	G-c Comparative Genomics Laboratory
Tovin, A.	C-c Division of Molecular and Developmental Biology
Toyoda, A.	G-c Comparative Genomics Laboratory F-a Mammalian Genetics Laboratory
Toyoda, T.	Ib Laboratory for Gene-Product Informatics
Toyokuni,S.	E-a Division of Human Genetics

Toyota, T.	D-a Division of Population Genetics
Tsuchiya, K.	F-a Mammalian Genetics Laboratory
Tsuchiya, R.	G-a Genetic Informatics Laboratory
Tsuda, K.	F-e Plant Genetics Laboratory
Tsuji, S.	G-c Comparative Genomics Laboratory
Tsukahara S	E-b Division of Agricultural Genetics
Tsumaki, N.	F-a Mammalian Genetics Laboratory
Twel D	E-b Division of Agricultural Genetics
Uchida, A.	A-a Division of Molecular Genetics
Uchida, K.	E-c Division of Brain Function
Uchida, A.	H-e Gene Network Laboratory
Uchiyama, Y.	C-c Division of Molecular and Developmental Biology
Ueda, H.	G-c Comparative Genomics Laboratory C-a Division of Developmental Genetics I-a Laboratory for DNA Data Analysis
Ueda, R.	F-g Invertebrate Genetics Laboratory
Uehara, S.	I-a Laboratory for DNA Data Analysis
Ukita K.	F-b Mammalian Development Laboratory
Umeda, M.	H-e Gene Network Laboratory
Umemori, J.	F-c Mouse Genomics Resource Laboratory
Umemori, M.	F-g Invertebrate Genetics Laboratory
Umetsu, K.	D-a Division of Population Genetics
Uno, T.	F-c Mouse Genomics Resource Laboratory
Urasaki, A.	C-c Division of Molecular and Developmental Biology
Urban, J.	C-c Division of Molecular and Developmental Biology
Vagnarelli, P.	A-a Division of Molecular Genetics
Vakonakis I	G-b Genome biology Laboratory
Valiente, G.	I-a Laboratory for DNA Data Analysis
Vleugel, M.	A-a Division of Molecular Genetics
Wada, N.	F-a Mammalian Genetics Laboratory
Wakaguri, H.	G-c Comparative Genomics Laboratory
Wakamatsu Y.	G-b Genome biology Laboratory
Waller-Evans H	G-b Genome biology Laboratory
Wang X	G-b Genome biology Laboratory
Wang, CC.	I-a Laboratory for DNA Data Analysis
Wang, G.	C-c Division of Molecular and Developmental Biology
Wang, G.X.	C-c Division of Molecular and Developmental Biology
Wang, W.	C-c Division of Molecular and Developmental Biology
Wang, Y.	F-g Invertebrate Genetics Laboratory
Warner A	G-b Genome biology Laboratory
Watanabe H	I-b Laboratory for Gene-Product Informatics
Watanabe M	G-b Genome biology Laboratory
Watanabe N	G-b Genome biology Laboratory
Watanabe, J.	G-c Comparative Genomics Laboratory
Watanabe, K.	G-c Comparative Genomics Laboratory
Watanabe, N.	H-d Biomolecular Structure Laboratory



Watanabe, T.	G-c Comparative Genomics Laboratory
Watanabe, Y.	H-a Biological Macromolecules
Weinberg, ES.	C-c Division of Molecular and Developmental Biology
Wilson, S.	C-c Division of Molecular and Developmental Biology
Wilson, SW.	C-c Division of Molecular and Developmental Biology
Win, KT.	F-e Plant Genetics Laboratory
Wong K	G-b Genome biology Laboratory
Wu, BK.	C-c Division of Molecular and Developmental Biology
Wu, Y.	F-g Invertebrate Genetics Laboratory
Xu, Z.	A-a Division of Molecular Genetics
Yabuta, Y.	E-a Division of Human Genetics
Yagi, K.	G-c Comparative Genomics Laboratory
Yagita, K.	C-c Division of Molecular and Developmental Biology
Yagura, M.	B-b Division of Microbial Genetics
Yamada A.	F-a Mammalian Genetics Laboratory
Yamada, K.	D-a Division of Population Genetics
Yamagata, Y.	F-e Plant Genetics Laboratory
Yamaguchi, A.	G-c Comparative Genomics Laboratory
Yamaguchi, K.	H-a Biological Macromolecules
Yamaguchi, Y.	C-c Division of Molecular and Developmental Biology
Yamaguchi, K.	E-a Division of Human Genetics
Yamaguchi, S.	E-a Division of Human Genetics
Yamaji M.	F-b Mammalian Development Laboratory
Yamakawa, T.	G-a Genetic Informatics Laboratory
Yamaki, S.	F-e Plant Genetics Laboratory
Yamaki, N.	C-b Division of Neurogenetics
Yamamoto, H.	I-a Laboratory for DNA Data Analysis
Yamamoto, M.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology
Yamamoto, Y.	G-c Comparative Genomics Laboratory
Yamamoto-Hino, M.	F-g Invertebrate Genetics Laboratory
Yamano, T.	G-c Comparative Genomics Laboratory
Yamasaki, C.	I-a Laboratory for DNA Data Analysis
Yamasaki, T.	G-c Comparative Genomics Laboratory
Yamashita, M.	F-d Model Fish Genomics Resource
Yamato, K.	G-c Comparative Genomics Laboratory
Yamazaki Y	G-b Genome biology Laboratory
Yamazaki, Y.	G-a Genetic Informatics Laboratory
Yamazaki, Y.	G-a Genetic Informatics Laboratory
Yanagisawa, J.	H-a Biological Macromolecules
Yang, CH.	C-c Division of Molecular and Developmental Biology
Yano K	Ib Laboratory for Gene-Product Informatics
Yano, T.	G-c Comparative Genomics Laboratory C-c Division of Molecular and Developmental Biology
Yao, M.	H-d Biomolecular Structure Laboratory
Yasuhara R.	F-a Mammalian Genetics Laboratory

Yasui, H.	F-e Plant Genetics Laboratory
Yasukazu Nakamura	Ib Laboratory for Gene-Product Informatics
Yasumasa Shigemoto	Ib Laboratory for Gene-Product Informatics
Yasunaga,K.	H-e Gene Network Laboratory
Yayoi Ueda	L EXPERIMENTAL FARM
Yee,B.K.	C-b Division of Neurogenetics
Yen, T.J.	A-a Division of Molecular Genetics
Yokogawa, T.	C-c Division of Molecular and Developmental Biology
Yokoyama T	G-b Genome biology Laboratory
Yokoyama, H.	C-c Division of Molecular and Developmental Biology
Yokoyama, S.	A-a Division of Molecular Genetics H-a Biological Macromolecules
Yonekawa, H.	F-a Mammalian Genetics Laboratory I-a Laboratory for DNA Data Analysis
Yonemura, S.	C-c Division of Molecular and Developmental Biology
Yoshida H	G-b Genome biology Laboratory
Yoshida M.	H-d Biomolecular Structure Laboratory
Yoshida S.	F-b Mammalian Development Laboratory
Yoshida, A.	C-c Division of Molecular and Developmental Biology
Yoshida, J.	C-c Division of Molecular and Developmental Biology
Yoshida,H.	G-a Genetic Informatics Laboratory
Yoshihara, Y.	C-c Division of Molecular and Developmental Biology
Yoshikawa,T.	D-a Division of Population Genetics
Yoshikazu Kuwana	Ib Laboratory for Gene-Product Informatics
Yoshiki A.	G-c Comparative Genomics Laboratory
Yoshiki, A.	F-a Mammalian Genetics Laboratory
Yoshimoto A.	F-b Mammalian Development Laboratory
Yoshimune,K.	H-d Biomolecular Structure Laboratory
Yoshimura A.	F-e Plant Genetics Laboratory
Yoshimura, A.	F-e Plant Genetics Laboratory
Yoshimura, S.	E-c Division of Brain Function
Yuasa, S.	F-c Mouse Genomics Resource Laboratory
Yuasa,I.	D-a Division of Population Genetics
Yuichi Kodama	Ib Laboratory for Gene-Product Informatics
Yukiko Yamazaki	G-a Genetic Informatics Laboratory
Yumiko Saga	F-b Mammalian Development Laboratory
Yusuke Okubo	F-b Mammalian Development Laboratory
Zapf R	G-b Genome biology Laboratory
Zhang, H.	I-a Laboratory for DNA Data Analysis
Zhao Y	G-b Genome biology Laboratory
Zheng H	G-b Genome biology Laboratory
Zhu,H.	H-e Gene Network Laboratory
Zinn,K.	H-e Gene Network Laboratory

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## Biological Symposium

- Apr, 3 次世代バイオイメージング法の目指すところ～高エネルギー1分子計測の役割～  
2009 (佐々木裕二)
- Apr, 16 ショウジョウバエの始原生殖細胞発生におけるシグナル伝達と生殖幹細胞のニッチ形  
2009 成機構(佐藤卓也)
- Apr, 17 Notch signaling is essential for coordinating cell fate, morphogenesis and migration  
2009 in the lateral line primordium (Miho Matsuda)
- Apr, 24 Evolution of placenta: maternal-fetal communication, attachment/invasion and  
2009 placental formation (Kazuhiko Imagawa)
- May, 20 Organization, development and function of glial cells in the Drosophila brain(Takeshi  
2009 Awasaki)
- May, 20 タンパク質相互作用ネットワークの大規模解析(夏目徹)  
2009
- May, 26 Activity-dependent Development of Interhemispheric Connections in Mouse  
2009 Cerebral Cortex (Hidenobu Mizuno)
- May, 26 Lineage specific diversification of duplicated gene function in teleost fish(Hayato  
2009 Yokoi)
- May, 26 S100B protein secreted from glial cells in the brain modulates neural network  
2009 activity (Seiichi Sakatani)
- May, 28 形態の人類学—骨と歯から—(石田肇)  
2009
- Jun, 3 The DNA-binding proteins are required for the establishment of centromere  
2009 chromatin (Tetsuya Hori)(堀哲也)
- Jun, 5 Structural kinetics of promoter binding and melting by E. coli RNA polymerase  
2009 (Bianca Sclavi)
- Jun, 8 DNA methylation and transgenerational epigenetic inheritance in plants (Jerzy  
2009 Paszkowski)
- Jun, 11 Genetic Mosaic Analysis of Drosophila Brain Development (Tzumin Lee)  
2009

- Jun,  
11  
2009 Growing around the clock: internal clocks regulate growth vigor in hybrids and allotetraploids (Jeffrey Chen)
- Jun,  
22  
2009 Distinct roles of the FGF system in the development of excitatory and inhibitory neurons in the forebrain (Flora M. Vaccarino)
- Jun,  
22  
2009 Translation factor control of stress-induced response: the role of eIF3e/Irf6 and rRNA (Katsura Asano)
- Jun,  
25  
2009 Evolution of the MHC DRA gene coding region in primates (Antoine Blancher)
- Jun,  
29  
2009 Derived features of the Oikopleura Genome (Daniel Chourrout)
- Jun,  
30  
2009 Novel characteristics of endogenous antisense transcripts in mammals revealed by genome-wide expression analysis, and their functional implications (Hidenori Kiyosawa)
- Jul, 2  
2009 Mitofusinsによるミトコンドリア形態調節機構と自然免疫制御への展望(小柴琢己)
- Jul, 6  
2009 Visualising a bacterial DNA-segregation system (Jeanne Salje)
- Jul, 9  
2009 Developmental Insights from the Study of Newly Emerging Model Species (Nipam Pate)
- Jul, 9  
2009 Evolutionary birth of a growth switch involving RTKs, Myc:Max, and ribosome biogenesis (Albert Erives)
- Jul,  
13  
2009 DNA damage and cancer: lessons from the fruit fly (Shu Kondo)
- Jul,  
23  
2009 B chromosomes -what makes them different? (Andreas Houben)
- Jul,  
27  
2009 Geographic differences of Helicobacter pylori genotypes and gastric cancer (Yoshio Yamaoka)
- Jul,  
28  
2009 Notch and Wnt Regulation of Cardiac Progenitors (Chulan Kwon)
- Jul,  
30  
2009 Genome wide analysis of Notch signaling in Drosophila by transgenic RNAi (Masakazu Yamazaki)
- Jul,  
30  
2009 Functional window of Tsix in the imprinted X-inactivation (Tatsuya Ohhata)
- Jul,  
31  
2009 STK25 acts as a modifier of Reelin-Dab1 signaling to regulate Tau phosphorylation, neuronal polarity, and Golgi apparatus morphology (Tohru Matsuki)

- Aug, 3 2009 ヘテロクロマチン領域伸長停止メカニズムの解析 (Analysis of heterochromatin boundary function), (沖昌也)(Masaya Oki)
- Aug, 19 2009 n Antarctic nematode as a model for studying genomic responses to an extreme environment(David A. Wharton)
- Aug, 25 2009 A Multiple Approach to Screening for Genes Involved in Mouse Craniofacial Development (Minoru Kawakami)
- Aug, 25 2009 Functional genomics powered by mouse inter-subspecific genome diversity (Toyoyuki Takada)
- Aug, 26 2009 Structure and function of budding yeast cohesin complex (Tatsuya Nishino)
- Aug, 28 2009 Chromosomes control their own segregation in mitosis (Hideki Yokoyama)
- Aug, 31 2009 Evolution of retrotransposon and evolution by retrotransposon (Kenji Kojima)
- Aug, 31 2009 Regulation of dominance relationships between self-incompatibility alleles via de novo DNA methylation (Yoshiaki Tarutani)
- Sep, 8 2009 p31cometの新規機能: ストレス応答におけるp53の質的制御(松本智裕)
- Sep, 10 2009 Optogenetic dissection of the role of cerebrospinal contacting neurons in the spinal cord (Claire Wyart)
- Sep, 15 2009 Imaging circuit assembly in the developing retina (Rachel Wong)
- Sep, 28 2009 Genome-Wide Patterns in the Evolution of Gene Expression (Daniel L. Hartl)
- Sep, 30 2009 Identification of direct-target genes of canonical Wnt signaling pathway in the presomitic mesoderm responsible for somitogenesis by using ChIP-Chip method (Mitsuji Maruhashi)
- Sep, 30 2009 Notch signaling regulates epithelial Clara/cilia fate selection and arterial smooth muscle cell determination during lung organogenesis (Mitsuru Morimoto)
- Oct, 8 2009 The biology of nuage: findings dropped from the clouds in germline cells (Toshie Kai)
- Oct, 13 2009 Using Zebrafish Genomics to elucidate Human Disease (Thomas S Becker)

- Oct,  
15  
2009 Global reorganization of replication domains during mouse ES cell differentiation – implications for nuclear genome architecture during development (Ichiro Hiratani)
- Oct,  
20  
2009 Evolutionary and functional significance of human intergenic transcripts (Yasunori Aizawa)
- Oct,  
20  
2009 Genome-wide RNAi analysis identifies novel components of the G2/M DNA damage checkpoint (Shu Kondo)
- Oct,  
20  
2009 Physical control of cell shape and tissue growth in Drosophila (Takashi Hayashi)
- Oct,  
21  
2009 Transgenerational genetic control of phenotypic variation and disease risk (Joe Nadeau)
- Oct,  
26  
2009 Ancient DNA researches on natural history of northern Japan (Ryuichi Masuda)
- Oct,  
28  
2009 Nuclear myosin 1 - The muscles for DNA transcription? (Pavel Hozak)
- Nov,  
12  
2009 The phylogenetic approach to investigating cultural evolution (Tom Currie)
- Nov,  
13  
2009 Neurobiological mechanisms of escalated aggression: GABA receptor modulation of dorsal raphe nucleus (Aki Takahashi)
- Nov,  
19  
2009 Controls of the frontal cortical size and the neuronal number during development (Setsuko Sahara)
- Nov,  
19  
2009 Evolution of Eyes and Photoreceptors (Walter J. Gehring)
- Nov,  
20  
2009 GENOME-WIDE ANALYSIS OF NATURAL SELECTION AND NEUTRAL THEORY (Masatoshi Nei)
- Nov,  
25  
2009 Immunoglobulin Gene Conversion and Somatic Hypermutation: Regulation, Evolution and Biotechnology (Hiroshi Arakawa)
- Nov,  
25  
2009 π型志向人間にとっての遺伝学: 新型インフルエンザウイルスのゲノム配列が変化して行く方向予測への挑戦 (池村淑道)
- Nov,  
25  
2009 Chromatin dynamics in vitro studied by atomic force microscopy (Kohji Hizume)
- Dec,  
1  
2009 Genetic approaches to understand mechanisms of brain maturation and remodeling in nematodes and mice (Yu Hayashi)

- Dec,  
4  
2009 Reorganization of chromatin arrangement after DNA breakage -How does a chromosome architecture influence DSB repair? – (Koichi Watanabe)
- Dec,  
7  
2009 Small RNA-directed DNA elimination in Tetrahymena (Kazufumi Mochizuki)
- Dec,  
7  
2009 The Dynamic Genome of Hydra (Charles N. David)
- Dec,  
8  
2009 Forward Genetic Screens in the Mouse to Discover Cancer Genes and Cancer Pathways (David Adams)
- Dec,  
8  
2009 Functional Strategies Shared by Invertebrate and Vertebrate Nervous Systems (Ralph Greenspan)
- Dec,  
8  
2009 The Mouse Genomes Project: Background, Informatics Challenges, and visualization (Thomas Keane)
- Dec,  
14  
2009 The role of the Wnt/ $\beta$ -catenin signaling gradient in presomitic mesoderm development (Alexander Aulehla)
- Dec,  
14  
2009 Using quantitative genetics to understand behavior in mice and humans (Palmer Abraham)
- Dec,  
14  
2009 Targeted Genome Alteration Using OPEN Zinc Finger Nucleases (J. Keith Joung)
- Dec,  
17  
2009 Reversible Mono-Ubiquitination of Smad4 Regulates TGF- $\beta$  Signaling in Flies, Frogs and Mammalian Cells (Stuart Newfeld)
- Dec,  
17  
2009 Timing and Coordination in Flower Development- Regulation of Chromatin by a Homeotic Transcription Factor (Toshiro Ito)
- Dec,  
18  
2009 Symmetry breaking in *C. elegans* zygote (Fumio Motegi)
- Dec,  
21  
2009 Live cell imaging of Xic homologous pairing in mouse ES cells : implications for the initiation of X chromosome inactivation (Osamu Masui)
- Dec,  
28  
2009 Live-Watching TE Burst: The Behavior and the Impact. (Ken Naito)
- Dec,  
28  
2009 A characteristic role for anti-oxidant responses of the cochlear melanocytes essential for hearing acuity (Shigeyuki Uehara)
- Jan, 7  
2010 Self-organisation and ordered pattern of nuclei in syncytial embryo of *Drosophila* (Takuma Kanesaki)

- Jan, 8  
2010 A role of ultrasonic vocalizations for mating behavior in mice (Hiroki Sugimoto)
- Jan,  
15  
2010 Tempo and Mode of Chloroplast Evolution, and Seed Plant Phylogeny (Masami Hasegawa)
- Jan,  
20  
2010 Inheritance of organellar DNAs in higher plants: cytological and genetic studies on discriminating organellar DNAs in male gametophytes (Wataru Sakamoto)
- Jan,  
26  
2010 Isolation and Characterization of the Swi5/Sfr1 complex in mice (Yufuko Akamatsu)
- Feb,  
1  
2010 Frontiers of Science (Barbara R. Jasny)
- Feb,  
8  
2010 A mathematical model of bacterial plasmid partitioning (Takeshi Sugawara)
- Feb,  
8  
2010 Bacterial mRNA dynamics: Inter-relationships between transcript synthesis, transcript termination, translation, and mRNA degradation (Growrishankar, J)
- Feb,  
10  
2010 Genetic Diversity and Association Study in Japanese Rice Cultivars (Masanori Yamasaki)
- Feb,  
10  
2010 Conservation of developmental mechanisms in evolutionarily divergent brain structures (Ikuo Suzuki)
- Feb,  
15  
2010 Analysis of motif sequences for binding to human REV7 and MAD2 proteins (Tomo Hanafusa)
- Feb,  
18  
2010 脂質2分子膜小胞の変形の膜弾性モデルを用いた理論解析(梅田民樹)
- Feb,  
22  
2010 Analyses of mitosis and meiosis using interspecific hybrids in the medaka fish (*Oryzias latipes*) (Chiharu Sakai)
- Mar,  
2  
2010 RNA editing in plant organelles: Correlation between editing sites and protein three-dimensional structures, and prediction of RNA editing sites (Kei Yura)
- Mar,  
4  
2010 Development and application of package software for molecular dynamics (MD) simulation (Munetaka Takeuchi)
- Mar,  
5  
2010 Analysis of the factors that affect efficient induction of heritable transcriptional gene silencing through Cucumber mosaic virus infection (Shungo Otagaki)
- Mar,  
11  
2010 Arousal regulation by sensory stimuli and neuromodulators in *C. elegans* (Yoshinori Tanizawa)



Mar,  
12  
2010 Direct visualization of endosomal escape of lipid-coated beads by live CLEM (Shouhei Kobayashi)

Mar,  
23  
2010 3D/4D interactive visualization tools for confocal microscopy (Hideo Otsuna)

Mar,  
30  
2010 Controls of germline self-renewal and differentiation in *C. elegans* (Judith Kimble)

Mar,  
31  
2010 Mechanisms of mRNA control: Finding the mRNA and controlling its fate (Marvin Wickens)

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## Foreign Visitors

Apr, 2009	17	Miho Matsuda	Neural Developmental Dynamics LMG, NICHD, NIH, USA
May, 2009	20	Takeshi Awasaki	University of Massachusetts Medical School
May, 2009	26	Hayato Yokoi	Institute of Neuroscience, University of Oregon
Jun, 2009	5	Bianca Sclavi	CNRS/Ecole Normale Superieure de Cachan, FRANCE
Jun, 2009	8	Jerzy Paszkowski	University Of Geneva
Jun, 2009	11	Jeffrey Chen	University of Texas
Jun, 2009	11	Tzumin Lee	University of Massachusetts Medical School and Janelia Farm, HHMI
Jun, 2009	22	Flora M. Vaccarino	Yale University School of Medicine
Jun, 2009	22	Katsura Asano	Division of Biology, Kansas State University
Jun, 2009	25	Antoine Blancher	Universite Paul Sabatier, Hopital Rangueil Toulouse FRANCE
Jun, 2009	29	Daniel Chourrout	Sars International Center for Marine Molecular Biology, University of Bergen, Norway
Jul, 2009	6	Jeanne Salja	MRC Laboratory of Molecular Biology, Cambridge/Kyoto University
Jul, 2009	9	Albert Erives	Dept. of Biological Sciences, Dartmouth College
Jul, 2009	9	Nipam Patel	University of California, Berkeley Departments of Molecular Cell Biology and Integrative Biology
Jul, 2009	13	Shu Kondo	Harvard Medical School, Department of Genetics
Jul, 2009	23	Andreas Houben	Leibniz Institute for Plant Genetics and Crop Plant Research Gatersleben, Germany
Jul, 2009	28	Chulan Kwon	Gladstone Institute of Cardiovascular Disease University of California San Francisco

Jul, 2009	30	Tatsuya Ohhata		Research Institute of Molecular Pathology, Vienna, Austria
Jul, 2009	31	Tohru Matsuki		State University of New York, Upstate Medical University
Aug, 2009	19	David Wharton	A.	Department Zoology, University of Otago
Aug, 2009	28	Hideki Yokoyama		EMBL, Cell Biology Unit, Heidelberg, Germany
Sep, 2009	1	Claire Wyart		UC Berkeley, USA
Sep, 2009	15	Rachel Wong		Dept. Biological Structure, University of Washington
Sep, 2009	28	Daniel Hartl	L.	Department of Organismic & Evolutionary Biology, Harvard University
Sep, 2009	30	Mitsuji Maruhashi		Howard Hughes Medical Institute Stowers Institute for Medical Research
Sep, 2009	30	Mitsuru Morimoto		Department of Developmental Biology, Washington University in St. Louis
Oct, 2009	1	Yoshiteru Sato		Institute of Genetics and Molecular and Cellular Biology (IGBMC)
Oct, 2009	8	Toshie Kai		Temasek Life Science Laboratory, Singapore
Oct, 2009	13	Thomas Becker	S	The Brain and Mind Research Institute, University of Sydney, Australia
Oct, 2009	15	Ichiro Hiratani		David Gilbert Laboratory, Department of Biological Science, Florida State University
Oct, 2009	20	Shu Kondo		Department of Genetics, Harvard Medical School
Oct, 2009	21	Joe Nadeau		Dept. of Genetics, Case Western Reserve University, Cleveland
Oct, 2009	28	Pavel Hozak		Institute of Molecular Genetics, Prague, Academy of Sciences of the Czech Republic
Nov, 2009	13	Aki Takahashi		Department of Psychology Tufts University, USA
Nov, 2009	19	Setsuko Sahara		The Salk Institute for Biological Studies
Nov, 2009	19	Walter Gehring	J.	Biozentrum, University of Basel
Nov, 2009	20	Masatoshi Nei		Pennsylvania State University
Nov, 2009	25	Hiroshi Arakawa		Helmholtz Center Munich, German Research Center for Environmental Health
Dec, 2009	4	Koichi Watanabe		Leibniz Institute for Plant Genetics and Crop Plant Research

Dec, 2009	7	Charles David	N. Ludwig-Maximilians University
Dec, 2009	7	Kazufumi Mochizuki	IMBA, Wien
Dec, 2009	8	David Adams	Wellcome Trust Sanger Institute, UK
Dec, 2009	8	Ralph Greenspan	The Neuroscience Institute, USA
Dec, 2009	8	Thomas Keane	Wellcome Trust Sanger Institute, UK
Dec, 2009	14	Alexander Aulehla	EMBL, Heidelberg
Dec, 2009	14	J. Joung	Keith Harvard Medical School
Dec, 2009	14	Palmer Abraham	Department of Human Genetics, University of Chicago
Dec, 2009	17	Toshiro Ito	Temasek Life Science Laboratory, National University of Singapore
Dec, 2009	17	Stuart Newfeld	School of Life Science, Arizona State University
Dec, 2009	18	Fumio Motegi	Johns Hopkins University School of Medicine, HHMI
Dec, 2009	21	Osamu Masui	Mammalian Developmental Epigenetics Group, CNRS UMR3215/INSERMU934, Curie Institute
Dec, 2009	28	Ken Naito	Plant Science, University of Georgia
Jan, 2010	7	Takuma Kanesaki	Department of Developmental Biochemistry, Faculty of Medicine Georg-August Universitat Gottingen
Jan, 2010	15	Msami Hasegawa	School of Life Sciences, Fudan University
Jan, 2010	26	Yufuko Akamatsu	Memorial Sloan-Kettering Cancer Center
Feb, 2010	1	Barbara Jasny	R. Deputy Editor for Commentary, Science/AAAS
Feb, 2010	8	Gowrishanjar, J.	Center for DNA Fingerprinting and Diagnostics, Hyderabad, India
Mar, 2010	11	Yoshinori Tanizawa	MAC Laboratory of Molecular Biology, Cell Biology Division, Cambridge, England
Mar, 2010	23	Hideo Otsuna	University of Utah, Neurobiology and Anatomy
Mar, 2010	30	Judith Kimble	University of Wisconsin, Department of Biochemistry
Mar, 2010	31	Marvin Wickens	University of Wisconsin, Department of Biochemistry

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