研究発表
Publications

Experimental Animal Division

Journals in English or non-Japanese (Peer reviewed)

Hasegawa Y, Daitoku Y, Sekiguchi K, Tanimoto Y, Iijima S, Mizuno S, Kajiwara N, Ema M, Miwa Y, Mekada K, Yoshiki A, Takahashi S, Sugiyama F, Yagami KI, "Novel ROSA26 Cre-reporter knock-in C57BL/6N mice exhibiting green emission before and red emission after Cre-mediated recombination" Exp Anim 62 295-304 (2013)

Oikawa M, Inoue K, Shiura H, Matoba S, Kamimura S, Hirose M, Mekada K, Yoshiki A, Tanaka S, Abe K, Ishino F, Ogura A, "Understanding the X chromosome inactivation cycle in mice: A comprehensive view provided by nuclear transfer" Epigenetics 9 204-211 (2013)

Kitamura T, Pignatelli M, Suh J, Kohara K, Yoshiki A, Abe K, Tonegawa S. "Island Cells Control Temporal Association Memory" Science 343 896-901 (2014)

Hasegawa Y, Daitoku Y, Mizuno S, Tanimoto Y, Mizuno-Iijima S, Matsuo M, Kajiwara N, Ema M, Oishi H, Miwa Y, Mekada K, Yoshiki A, Takahashi S, Sugiyama F and Ken-ichi Yagami, "Generation and characterization of Ins1-cre-driver C57BL/6N for exclusive pancreatic beta cell-specific Cre-loxP recombination" Exp Anim 63 (2014) in press

International Conferences (Participants): 4

Domestic Conferences (Invited)

Ike F "Microbiological tests required at experimental animal exportation" The 60th Annual Meeting of Japanese Association for Laboratory Animal Science Tsukuba May 2013

Yoshiki A, Nakata H, Mekada K "Genetic control for ensuring the reproducibility of animal experiments" The 60th Japanese Conference for Laboratory Animal Science and Technology Okayama September 2013

Ike F "Microbiological tests essential to shipping experimental mouse abroad" The 3rd Charles River Asian Short Cource Yokohama October 2013

Yoshiki A "The NBRP-mouse in the future" The 30th Annivarsaly, The 120th Kanasai Laboratory Animal Research Association Kyoto Desember 2013

Domestic Conferences (Participants): 20

Experimental Plant Division

Journals in English or non-Japanese (Peer reviewed)

Narusaka M, Yao N, Iuchi A, Iuchi S, Shiraishi T, Narusaka Y "Identification of *Arabidopsis* accession with resistance to *Botrytis cinerea* by natural variation analysis, and characterization of the resistance response" Plant Biotech 30 89-95 (2013)

Kobayashi Y, Kobayashi Y, Sugimoto M, Lakshmanan V, Iuchi S, Kobayashi M, Bais HP, Koyama H "Characterization of the complex regulation of *AtALMT1* expression in response to phytohormones and oher inducers" Plant Physiol 162 732-740 (2013)

Ariga H, Katori T, Yoshihara R, Hase Y, Nozawa S, Narumi I, Iuchi S, Kobayashi M, Tezuka K, Sakata Y, Hayashi T, Taji T "*Arabidopsis sos1* mutant in a salt-tolerant accession revealed an importance of salt acclimation ability in plant salt tolerance" Plant Signaling & Behavior 8 e24779-1-5 (2013) www.landesbioscience.com

Ohyama Y, Ito H, Kobayashi Y, Ikka T, Morita A, Kobayashi M, Imaizumi R, Aoki T, Komatsu K, Sakata Y, Iuchi S, Koyama H "Characterization of *AtSTOP1* orthologous genes in tobacco and other plant species" Plant Physiol 162 1937-1946 (2013)

Behnam B, Iuchi S, Fujita M, Fujita Y, Takasaki H, Osakabe Y, Shinozak KY, Kobayashi M, Shinozaki K "Characterization of the promoter region of an *Arabidopsis* gene for 9-cis-epoxycarotenoid dioxygenase involved in dehydration-inducible transcription" DNA Res 20 315–324 (2013)

Abe H, Tateishi K, Seo S, Kugimiya S, Hirai MY, Sawada Y, Murata Y, Yara K, Shimoda T, Kobayashi M "Disarming the jasmonate-dependent plant defense makes nonhost Arabidopsis plants accessible to the American serpentine leafminer" Plant Physiol 163 1242-1253 (2013)

Wasano N, Sugano M, Nishikawa K, Okuda K, Shindo M, Abe H, Park SY, Hiradate S, Tsunashi K, Fujii Y "Root-specific induction of early auxin-responsive genes in *Arabidopsis* thaliana by *cis*-cinnamic acid" Plant Biotechnology 30 465-471 (2013)

Kobayashi Y, Ohyama Y, Kobayashi Y, Ito H, Iuchi S, Fujita M, Zhao CR, Tanveer T, Ganesan M, Kobayashi M, Koyama H "STOP2 activates transcription of several genes for Al-and low pH-tolerance that are regulated by STOP1 in *Arabidopsis*" Molecular Plant 7 311-322 (2014)

International Conferences (Invited)

Kobayashi M "Model plant resources that support metabolic studies" RIKEN MIP Joint Workshop on the Forefront of Metabolomics and Future Prospects Yokohama February 2014

International Conferences (Participant): 6

Domestic Conferences (Invited)

Abe H, Tomitaka Y, Seo S, Shioda T, Kugimiya S, Sakurai T, Tsuda S, Kobayashi M, "Analyses of interaction among Arabidopsis, thrips, and Tospovirus" The 252nd Sustainable Humanosphere Kyoto Japan February 2014

Domestic Conferences (Participants): 24

Cell Engineering Division

Journals in English or non –Japanese (Peer reviewed)

Kurita, R, Suda, N, Sudo, K, Miharada, K, Hiroyama T, Miyoshi H, Tani K, Nakamura Y "Establishment of immortalized human erythroid progenitor cell lines able to produce enucleated red blood cells" PLoS ONE 8 e59890 (2013)

Danjoh I, Shirota R, Hiroyama T, Nakamura Y "Dominant expansion of a cryptic subclone with an abnormal karyotype in B lymphoblastoid cell lines during culture" Cytogen Genome Res 139 88-96 (2013)

Fujitani N, Furukawa J, Araki K, Fujioka T, Takegawa Y, Piao J, Nishioka T, Tamura T, Nikaido T, Ito M, Nakamura Y, Shinohara Y "Total cellular glycomics allows characterizing cells and streamlining the discovery process for cellular biomarkers" Proc Natl Acad Sci USA 110 2105-2110 (2013)

Capes-Davis A, Reid YA, Kline MC, Storts DR, Strauss E, Dirks WG, Drexler HG, MacLeod RAF, Sykes G, Kohara A, Nakamura Y, Elmore E, Nims RW, Alston-Roberts C, Barallon R, Los GV, Nardone RM, Price PJ, Steuer A, Thomson J, Masters JRW, Kerrigan L "Match criteria for human cell line authentication: Where do we draw the line?" Int J Cancer 132 2510-2519 (2013)

Capes-Davis A, Alston-Roberts C, Kerrigan L, Reid YA, Barrett T, Burnett EC, Cooper JR, Freshney RI, Healy L, Kohara A, Korch C, Masters JRW, Nakamura Y, Nims RW, Storts DR, Dirks WG, MacLeod RAF, Drexler HG "MA-1, a novel MALT lymphoma cell line, is misidentified and corresponds to Pfeiffer, a diffuse large B-cell lymphoma cell line" Genes Chromosomes Cancer 52: 986-988 (2013)

International Conferences (Participant): 3

Domestic Conferences (Participants): 5

Gene Engineering Division

Journals in English or non –Japanese (Peer reviewed)

Hasegawa N, Abei M, Yokoyama K, Fukuda K, Seo E, Kawashima R, Nakano Y, Yamada T, Nakade K, Hamada H, Obata Y, Hyodo I "Cyclophosphamide enhances antitumor efficacy of oncolytic adenovirus expressing uracil phosphoribosyltransferase (UPRT) in immunocompetent Syrian hamsters" Int J Cancer 133 1479-1488 (2013).

Reis BS, Jungbluth AA, Frosina D, Holz M, Ritter E, Nakayama E, Ishida T, Obata Y, Carver B, Scher H, Scardino PT, Slovin S, Subudhi SK, Reuter VE, Savage C, Allison JP, Melamed J, Jäger E, Ritter G, Old LJ, Gnjatic S "Prostate cancer progression correlates with increased humoral immune response to a human endogenous retrovirus GAG protein" Clin Cancer Res 15 6112-6125 (2013).

Kohara K, Pignatelli M, Rivest AJ, Jung HY, Kitamura T, Suh J, Frank D, Kajikawa K, Mise N, Obata Y, Wickersham IR, Tonegawa S "Cell type-specific genetic and optogenetic tools reveal hippocampal CA2 circuits" Nat Neurosci 17 269-279 (2014).

Domestic Conferences (Participants): 6

Microbe Division

Journals in English or non-Japanese (Peer reviewed)

Kato S, Chan C, Itoh T, Ohkuma M "Functional gene analysis of freshwater iron-rich flocs at circumneutral pH and isolation of a stalk-forming microaerophilic iron-oxidizing bacterium" Appl Environ Microbiol 79 5283-5290 (2013)

Wu L, Sun Q, Sugawara H, Yang S, Yuguang Zhou, McCluskey K, Vasilenko A, Suzuki K, Ohkuma M, Lee Y, Robert V, Ingsriswang S, Guissart F, Philippe D, Ma J "Global catalogue of microorganisms (gcm): a comprehensive database and information retrieval, analysis, and visualization system

microbial resources" BMC Genomics 14 933 (2013)

Nakabachi A, Ueoka R, Oshima K, Teta R, Mangoni A, Gurgui M, Oldham NJ, van Echten-Deckert G, Okamura K, Yamamoto K, Inoue H, Ohkuma M, Hongoh Y, Miyagishima S, Hattori M, Piel J, Fukatsu T "Defensive bacteriome symbiont with a drastically reduced genome" Curr Biol 23 1478-1484 (2013)

Kato S, Nakawake M, Kita J, Yamanaka T, Utsumi M, Okamura K, Ishibashi J, Ohkuma M, Yamagishi A "Characteristics of microbial communities in crustal fluids in a deep-sea hydrothermal field of the Suiyo Seamount" Front Microbiol 4 85 (2013)

Mino S, Maikita H, Toki T, Miyazaki J, Kato S, Watanabe H, Imachi H, Watsuji T, Nunoura T, Kojima S, Sawabe T, Takai K, Nakagawa S "Biogeography of Persephonella in deep-sea hydrothermal vents of the Western Pacific" Front Microbiol 4 107 (2013)

Sakamoto M, Tanaka N, Shiwa Y, Yoshikawa H, Ohkuma M "Draft genome sequences of *Porphyromonas crevioricanis* JCM 15906^{T} and *Porphyromonas cansulci* JCM 13913T isolated from a canine oral cavity" Genome Announc 1 e00483-13 (2013)

Hattori S, Hongoh Y, Itoh T, Deevong P, Trakulnaleamsai S, Noparatnaraporn N, Kudo T, Ohkuma M "*Sporomusa intestinalis* sp. nov., a homoacetogenic bacterium isolated from the gut of a higher termite, *Termes comis* (Termitinae)" J Gen Appl Microbiol 59 321-324 (2013)

Iino T, Tamaki H, Tamazawa H, Ueno Y, Ohkuma M, Suzuki K, Igarashi Y, Haruta S "*Candidatus* Methanogranum caenicola: a novel methanogen from the anaerobic digested sludge, and proposal of *Methanomassiliicoccaceae* fam. nov. and *Methanomassiliicoccales* ord. nov., for a methanogenic lineage of the class *Thermoplasmata*" Microbes Environ 28 244-250 (2013)

Lorliam W, Akaracharanya A, Suzuki M, Ohkuma M, Tanasupawat S "Diversity and fermentation products of xylose-utilizing yeasts isolated from buffalo feces in Thailand" Microbes Environ 28 354-360 (2013)

Shimoshige H, Yamada T, Minegishi H, Echigo A, Shimane Y, Kamekura M, Itoh T, Usami R "*Halobaculum magnesiiphilum* sp. nov., a magnesium-dependent haloarchaeon isolated from commercial salt" Int J Syst Evol Microbiol 63 861-866 (2013)

Shimane Y, Nagaoka S, Minegishi H, Kamekura M, Echigo A, Hatada Y, Itoh T, Usami R "*Natronoarchaeum philippinense* sp. nov., a haloarchaeon isolated from commercial solar salt" Int J Syst Evol Microbiol 63 920-924 (2013)

Thawai C, Thamsathit W, Kudo T "*Planosporangium thailandense* sp. nov., isolated from soil from a Thai hot spring" Int J Syst Evol Microbiol 63 1051-1055 (2013)

Yamauchi Y, Minegishi H, Echigo A, Shimane Y, Shimoshige H, Kamekura M, Itoh T, Doukyu N, Inoue A, Usami R "*Halarchaeum salinum* sp. nov., a moderately acidophilic haloarchaeon isolated from commercial sea salt" Int J Syst Evol Microbiol 63 1138-1142 (2013)

Tohno M, Kitahara M, Inoue H, Uegaki Ryuichi, Irisawa T, Ohkuma M, Tajima K "*Weissella oryzae* sp. nov., isolated from fermented rice grains" Int J Syst Evol Microbiol 63 1417-1420 (2013)

Ziegler S, Waidner B, Itoh T, Schumann P, Spring S, Gescher J "*Metallibacterium scheffleri* gen. nov., sp. nov., an alkalinizing gammaproteobacterium isolated from an acidic biofilm" Int J Syst Evol Microbiol 63 1499-1504 (2013)

Promnuan Y, Kudo T, Ohkuma M, Chantawannakul P "*Streptomyces chiangmaiensis* sp. nov. and *Streptomyces lannensis* sp. nov., isolated from the South-East Asian stingless bee (Tetragonilla collina)" Int J Syst Evol Microbiol 63 1896-1901 (2013)

Tohno M, Kitahara M, Uegaki R, Irisawa T, Ohkuma M, Tajima K "*Lactobacillus hokkaidonensis* sp. nov., isolated from subarctic timothy grass (*Phleum pratense* L.) silage" Int J Syst Evol Microbiol 63 2526-2531 (2013)

Azuma R, Bok B-U, Murakami S, Irisawa H, Osaki M, Shimada N, Ito Y, Miyagawa E, Makino T, Kudo T Takahashi Y, Yano I, Murata R, Yokoyama E, "*Tonisilliphilus suis* gen. nov., sp. nov., causing tonsil infections in pigs" Int J Syst Evol Microbiol 63 2545-2552 (2013)

Tohno M, Kitahara M, Irisawa T, Inoue H, Uegaki R, Ohkuma M, Tajima T "*Lactobacillus oryzae* sp. nov., isolated from fermented rice grain (*Oryza sativa* L. *subsp. japonica*)." Int J Syst Evol Microbiol 63 2957-2962 (2013)

Yamauchi Y, Minegishi H, Echigo A, Shimane Y, Kamekura M, Itoh T, Ohkuma M, Doukyu N, Inoue A, Usami R "*Halarchaeum rubridurum* sp. nov., a moderately acidophilic haloarchaeon isolated from commercial sea salt samples" Int J Syst Evol Microbiol 63 3143-3147 (2013)

Kitahara M, Sakamoto M, Tsuchida S, Kawasumi K, Amao H,

Benno Y, Ohkuma M "*Parabacteroides chinchillae* sp. nov., isolated from chinchilla (*Chincilla lanigera*) faeces" Int J Syst Evol Microbiol 63 3470-3474 (2013)

Echigo A, Minegishi H, Shimane Y, Kamekura M, Itoh T, Usami R "*Halomicroarcula pellucida* gen. nov., sp. nov., a non-pigmented, transparent-colony-forming, halophilic archaeon isolated from solar salt" Int J Syst Evol Microbiol 63 3556-3562 (2013)

Tohno M, Kitahara M, Irisawa T, Masuda T, Uegaki R, Ohkuma M, Tajima K "Description of *Lactobacillus iwatensis* sp. nov., isolated from orchardgrass (*Dactylis glomerata* L.) silage, and *Lactobacillus backii* sp. nov." Int J Syst Evol Microbiol 63 3854-3860 (2013)

Minegishi H, Yamauchi Y, Echigo A, Shimane Y, Kamekura M, Itoh T, Ohkuma M, Usami R "*Halarchaeum nitratireducens* sp. nov., a moderately acidophilic haloarchaeon isolated from commercial sea salt" Int J Syst Evol Microbiol 63 4202-4206 (2013)

Endo A, Irisawa T, Futagawa-Endo Y, Salminen S, Ohkuma M, Dicks L "*Lactobacillus faecis* sp. nov., isolated from animal faeces" Int J Syst Evol Microbiol 63 4502-4507 (2013)

Tohno M, Kitahara M, Irisawa T, Masuda T, Uegaki R, Ohkuma M, Tajima K "*Lactobacillus silagei* sp. nov., isolated from orchardgrass silage" Int J Syst Evol Microbiol 63 4613-4618 (2013)

Sitdhipol J, Tanasupawat S, Tepkasikul P, Yukphan P, Tosukhowong A, Itoh T, Benjakul S, Visessanguan W "Identification and histamine formation of *Tetragenococcus* isolated from Thai fermented food products" Annal Microbiol 63 861-866 (2013)

Kim T-Y, Kim S-J, Park S-J, Kim J-G, Cha I-T, Jung M-Y, Lee S-A, Roh SW, Yim K J, Itoh T, Rhee S-K "*Natronomonas gomsonensis* sp. nov., isolated from a solar saltern" Antonie van Leeuwenhoek 104 627-635 (2013)

Hamana K, Hayashi H, Niitsu M, Takeda A, Itoh T "Cellular polyamines of alkaliphilic, halophilic and thermophilic methanogens, and acidophilic and alkaliphilic extreme halophiles, and acidophilic thermophiles belonging to the domain Archaea: polyamine catalogues of bacterial (eubacterial) and archaeal (archaebacterial) extremophiles VII" J Jap Soc Extremophiles 12 18-28 (2013)

Songsumanus A, Kudo T, Igarashi Y, Tanasupawat S "Characterization and screening of antimicrobial activity of *Micromonospora* strains from Thai soils" Malaysian J Microbiol 9 260-269 (2013)

Nakabachi A, Nikoh N, Oshima K, Inoue H, Ohkuma M, Hongoh Y, Miyagishima S, Hattori M, Fukatsu T "Horizontal gene acquisition of *Liberibacter* plant pathogens from a bacteriome-confined endosymbiont of their psyllid vector" PLoS ONE 8 e82612 (2013)

Doi K, Nishizaki Y, Kimura H, Kitahara M, Fujino Y, Ohmomo S, Ohshima T Ogata S "Identification of thermo tolerant lactic acid bacteria isolated from silage prepared in the hot and humid climate of Southwestern Japan" SpringerPlus 2 485 (2013)

Shintani M, Matsui K, Inoue J, Hosoyama A, Ohji S, Yamazoe A, Nojiri H, Kimbara K, Ohkuma M "Single-cell analyses revealed transfer ranges of IncP-1, IncP-7, and IncP-9 plasmids in a soil bacterial community" Appl Environ Microbiol 80 138-145 (2014)

Ohkuma M, Yuki M, Oshima K, Suda W, Oshida Y, Kitamura K, Iida T, Hattori M "Draft genome sequence of an alkaliphilic and xylanolytic *Paenibacillus* sp. strain JCM 10914, isolated from the gut of a soil-feeding termite" Genome Announc 2 e01144-13 (2014)

Sakamoto M, Oshima K, Suda W, Kitamura K, Iida T, Hattori M, Ohkuma M "Draft genome sequences of three strains of *Bacteroides pyogenes* isolated from a cat and swine" Genome Announc 2 e01242-13 (2014)

Yuki M, Oshima K, Suda W, Oshida Y, Kitamura K, Iida T, Hattori M, Ohkuma M "Draft genome sequences of three alkaliphilic *Bacillus* strains, *Bacillus wakoensis* JCM 9140^T, *Bacillus akibai* JCM 9157^T, and *Bacillus hemicellulosilyticus* JCM 9152^T" Genome Announc 2 e01258-13 (2014)

Yuki M, Oshima K, Suda W, Sakamoto M, Iida T, Hattori M, Ohkuma M "Draft genome sequence of *Bacteroides reticulotermitis* strain JCM 10512^T, isolated from the gut of a termite" Genome Announc 2 e00072-14 (2014)

Ahmed I, Oshima K, Suda W, Kitamura K, Iida T, Ohmori Y, Fujiwara T, Hattori M, Ohkuma M "Draft genome sequence of boron-tolerant and moderately halo-tolerant bacterium *Gracilibacillus boraciitolerans* JCM 21714^T" Genome Announc 2 e00097-14 (2014)

Yuki M, Oshima K, Suda W, Sakamoto M, Kitamura K, Iida T, Hattori M, Ohkuma M "Draft genome sequence of *Clostridium straminisolvens* strain JCM 21531^T, isolated from a cellulose-degrading bacterial community" Genome Announc 2 e00110-14 (2014)

Ahmed I, Oshima K, Suda W, Kitamura K, Iida T, Ohmori Y, Fujiwara T, Hattori M, Ohkuma M "Draft genome sequence of boron-tolerant and moderately halo-tolerant bacterium *Gracilibacillus boraciitolerans* JCM 21714^T" Genome Announc 2 e00097-14 (2014)

Yuki M, Oshima K, Suda W, Sakamoto M, Kitamura K, Iida T, Hattori M, Ohkuma M "Draft genome sequence of *Clostridium straminisolvens* strain JCM 21531^T, isolated from a cellulose-degrading bacterial community" Genome Announc 2 e00110-14 (2014)

Tsuchida S, Takahashi S, Nguema PPM, Fujita S, Kitahara M, Yamagiwa J, Ngomanda A, Ohkuma M, Ushida K "*Bifidobacterium moukalabense* sp. nov., isolated from the faeces of wild west lowland gorilla (*Gorilla gorilla gorilla*)" Int J Syst Evol Microbiol 64 449-455 (2014)

International Conferences (Invited)

Itoh T, "Exolartion of thermophilic microorganisms from terrestrial hot springs" 2013 International meeting of the microbiological society of Korea, Jeonju Korea, May 2013

Itoh T, "JCM experience on CBD/NP" The World Data Center for Microorganisms (WDCM) Workshop: TRUST Series Meeting, Information Technology to Implement the CBD/NP in Microbiology, Shanghai Korea, May 2013

Ohkuma M, "Symbioses between termite-gut cellulolytic flagellates and their associated bacteria" 3rd RIKEN-Liverpool Symposium, Liverpool UK, July 2013

Ohkuma M, "Metabolic coordinations between termite-gut cellulolytic flagellates and their endosymbiontic bacteria" International Congress of Protistology ICOP XIV, Vancouver Canada, July 2013

Ohkuma M, "ACM member report - Japan Collection of Microorganisms (JCM), RIKEN BioResource Center" The 10th Asian Consortium for the Conservation and Sustainable Utilization of Microbial Resources, Beijing China, September 2013

Ohkuma M, "Single cell analysis of termite-gut bacteria" The 13th International Conference on Culture Collections (ICCC13), Beijing China, September 2013

Itoh T, "Diversity of a hyperthermophilic archaeal genus *Vulcanisaeta*" The 13th International Conference on Culture Collections (ICCC13), Beijing China, September 2013

Ohkuma M, "Activities of RIKEN BRC-JCM to Respond Demands of Scientific Community" The 5th Asian Network of Research Resource Centers (ANRRC) International Meeting, Hayama Japan, November 2013

International Conferences (Participants): 10

Domestic Conferences (Invited)

Endoh R, "Finding of homes of beneficial yeasts in forest insects" The 5th Industrial Non-Conventional Yeasts (MINCY), Tokyo, May 2013

Kato S, "Ecophysiology of iron-oxidizing bacteria inhabiting microaerobic environments" Japan Geoscience Union Meeting 2013, Chiba, May 2013

Itoh T, "How microbial culture collections and their networks support the ABS implementation under the Convention of Biodiversity and the Nagoya Protocol regimes" The 20th Meeting of Japan Society for Culture Collections" Tsukuba, June 2013

Iino T, "Roles of microbial resource centers for resolving microbiologically influenced corrosion" Microbially Influenced Corrosion Subcommitee of Japan Society of Corrosion Engineering, Tokyo, July 2013

Iino T, "Iron corrosion by novel nitrate-reducing bacteria isolated from crude oil" The 1st Seminar for Young Researcher in Microbially Influenced Corrosion, Hyogo, December 2013

Okada G, "What is a lichenized fungus, Dictyocatenulata alba?" The 13th Conference of Molecular Biology of Fungi, Tsukuba, November 2013

Ohkuma, M "Metabolic functions and symbioses in temite-gut microbial community" Yabuta Seminar on Research Frontiers in Biological Communications, Hamamatsu, December 2013

Domestic Conferences (Participants): 31

Bioresource Information Division

Journals in English or non-Japanese (Peer reviewed)

Fukami-Kobayashi K, Nakamura Y, Tamura T, Kobayashi M, "SABRE2: A Database connecting plant EST/full-length cDNA clones with Arabidopsis information" Plant Cell Physiol 55 e5 (2014)

Asamizu E, Ichihara H, Nakaya A, Nakamura Y, Hirakawa H, Ishii T, Tamura T, Fukami-Kobayashi K, Nakajima Y, Tabata S, "Plant Genome DataBase Japan (PGDBj): A portal website for the integration of plant genome-related databases" Plant Cell Physiol 55 e8 (2014)

International Conferences (Participants): 1

Domestic Conferences (Invited)

Oota, S "Chaos in evolution, in NIG Meeting: Evolution of Junk DNAs" Workshop in National Institute of Genetics, Mishima, June 2013

Oota, S "Chaos in evolution" Symposim on Methods for molecular evolutionary studies in special reference to massive data (15th Annual Meeting for the Society of Evolutionary Studies), University of Tsukuba, August 2013

Kaoru Fukami-Kobayashi, Yasukazu Nakamura, Takuro Tamura, Masatomo Kobayashi "SABRE2: A database connecting plant EST/full-length cDNA clones with Arabidopsis information" The 55th Annual Meeting of the Japanese Society of Plant Physiologists, Toyama, March 2014

Domestic Conferences (Participants): 4

Bioresource Enginnering Division

Journals in English or non-Japanese (Peer reviewed)

Hasegawa A, Mochida K, Tomishima T, Inoue K, Ogura A "Microdroplet in vitro rertilization can reduce the number of spermatozoa necessary for fertilizing oocytes" J Reprod Dev (in press)

Shinagawa T, Takagi T, Tsukamoto D, Tomaru C, Huynh LM, Sivaraman P, Kumarevel T, Inoue K, Nakato R, Katou Y, Sado T, Takahashi S, Ogura A, Shirahige K, Ishii, S "Histone variants enriched in oocytes enhance reprogramming to induced pluripotent stem cells" Cell Stem Cell 14 217-227 (2014)

Takasaki N, Tachibana K, Ogasawara S, Matsuzaki H, Hagiuda J, Ishikawa H, Mochida K, Inoue K, Ogonuki N, Ogura A, Noce T, Ito C, Toshimori K, Narimatsu H "A heterozygous mutation of *GALNTL5* affects male infertility with impairment of sperm motility" Proc Natl Acad Sci USA (in press)

Khalaj M, Abbasi A, Yamanishi H, Akiyama K, Wakitani S, Kikuchi S, Hirose M, Yuzuriha M, Magari M, Degheidy HA, Abe K, Ogura A, Hashimoto H, Kunieda T "A missense mutation in Rev7 disrupts formation of Polζ, impairing mouse development and repair of genotoxic-agent-induced DNA lesions" J Biol Chem 289 3811-3824 (2014)

Oikawa M, Inoue K, Shiura H, Matoba S, Kamimura S, Hirose M, Mekada K, Yoshiki A, Tanaka A, Abe K, Ishino F, Ogura A. "Understanding the X chromosome inactivation cycle in mice: A comprehensive view provided by nuclear transfer" Epigenetics 9 204-211 (2014)

Kuroki S, Matoba S, Akiyoshi M, Matsumura Y, Miyachi H, Mise N, Abe K, Ogura A, Wilhelm D, Koopman P, Nozaki M, Kanai Y, Shinkai Y, Tachibana M. "Epigenetic regulation of mouse sex determination by the histone demethylase Jmjd1a" Science 341 1106-1109 (2013)

Nagai A, Hattori T, Hirose M, Ogura A, Nozaki K, Aizawa M, Yamashita K "Mouse embryonic stem cells cultured under serum- and feeder-free conditions maintain their self-renewal capacity on hydroxyapatite" Materials Science and Engineering: C 34 214-220 (2014)

Akiyama K, Noguchi J, Hirose M, Kajita S, Katayama K, Khalaj M, Tsuji T, Ogura A, Kunieda T. "A mutation in the nuclear pore complex gene *Tmem48* causes gametogenesis defects in skeletal fusions with sterility (*sks*) mice" J Biol Chem 288 31830-31841 (2013)

Uchio-Yamada K, Sawada K, Tamura K, Katayama S, Monobe Y, Yamamoto Y, Ogura A, Manabe N. "Tenc1-Deficient Mice Develop Glomerular Disease in a Strain-Specific Manner." Nephron Exp Nephrol Vol.123 22-33 (2013)

Udagawa O, Ito C, Ogonuki N, Sato H, Lee S, Tripuvanuntakul P, Ichi I, Uchida Y, Nishimura T, Murakami M, Ogura A, Inoue T, Toshimori K, Arai H. "Oligo-astheno-teratozoospermia in mice lacking ORP4, a sterol-binding protein in the OSBP-related protein family" Genes Cells Vol.19 13-27 (2014)

Okae H, Matoba S, Nagashima T, Mizutani E, Inoue K, Ogonuki N, Chiba H, Funayama R, Tanaka S, Yaegashi N, Nakayama K, Sasaki H, Ogura A, Arima T. "RNA sequencing-based identification of aberrant imprinting in cloned mice" Hum Mol Genet Vol.23 992-1001 (2014)

Hirasawa R, Matoba S, Inoue K, Ogura A. "Somatic donor cell type correlates with embryonic, but not extra-embryonic, gene expression in postimplantation cloned embryos" PLoS One Vol.8 e76422 (2013)

Hirasawa R, Matoba S, Inoue K, Ogura A “Somatic donor cell type correlates with embryonic, but not extra-embryonic, gene expression in postimplantation cloned embryos” PLoS One 8 e76422 (2013)

Takashima S, Hirose M, Ogonuki N, Ebisuya M, Inoue K, Kanatsu-Shinohara M, Tanaka T, Nishida E, Ogura A, Shinohara T “Regulation of pluripotency in male germline stem cells by Dmrt1” Genes Dev 27 1949-1958 (2013)

Honda A, Hatori M, Hirose M, Honda C, Izu H, Inoue K, Hirasawa R, Matoba S, Togayachi S, Miyoshi H, Ogura A “Naive-like conversion overcomes the limited differentiation capacity of induced pluripotent stem cells” J Biol Chem 288 26157-26166 (2013)

Kushiyama A, Sakoda H, Oue N, Okubo M, Nakatsu Y, Ono H, Fukushima T, Kamata H, Nishimura F, Kikuchi T, Fujishiro M, Nishiyama K, Aburatani H, Kushiyama S, Iizuka M, Taki N, Encinas J, Sentani K, Ogonuki N, Ogura A, Kawazu S, Yasui W, Higashi Y, Kurihara H, Katagiri H, Asano T “Resistin-like molecule β is abundantly expressed in foam cells and is involved in atherosclerosis development” Arterioscler Thromb Vasc Biol 33 1986-1993 (2013)

Funaki T, Kon S, Tanabe K, Natsume W, Sato S, Shimizu T, Yoshida N, Wong WF, Ogura A, Ogawa T, Inoue K, Ogonuki N, Miki H, Mochida K, Endoh K, Yomogida K, Fukumoto M, Horai R, Iwakura Y, Ito C, Toshimori K, Watanabe T, Satake M “The Arf GAP SMAP2 is necessary for organized vesicle budding from the trans-Golgi-network and subsequent acrosome Formation in Spermiogenesis” Mol Biol Cell 24 2633-2644 (2013)

Morimoto H, Iwata K, Ogonuki N, Inoue K, Ogura A, Kanatsu-Shinohara M, Morimoto T, Yabe-Nishimura C, Shinohara T “ROS are required for mouse spermatogonial stem cell self-renewal” Cell Stem Cell Vol.12 774-786 (2013)

Fujiwara Y, Ogonuki N, Inoue K, Ogura A, Handel MA, Noguchi J, Kunieda T “t-SNARE Syntaxin2 (STX2) is implicated in intracellular transport of sulfoglycolipids during meiotic prophase in spermatogenesis” Biol Reprod 88 141 1-9 (2013)

Kamimura S, Inoue K, Ogonuki N, Hirose M, Oikawa M, Yo M, Ohara O, Miyoshi H, Ogura A “Mouse cloning using a drop of peripheral blood” Biol Reprod 89 24 1-6 (2013)

Shiura H, Ikeda R, Lee J, Sato T, Ogonuki N, Hirose M, Ogura A, Ogawa T, Abe K. “Generation of a novel germline stem cell line expressing a germline-specific reporter in the mouse” Genesis 51 498-505 (2013)

International Conferences (Invited)

Ogura A, “Analysis of the Dynamics of X Chromosome Inactivation by Nuclear Transfer” The 61st NIBB Conference "Cellular Community in Mammalian Embryogenesis” Okazaki July 2013

International Conferences (Participants): 3

Domestic Conferences (Invited)

Ogura A, “Mammalian developmental epigenetics analyzed by nuclear transfer” the 60th Annual Meeting of Japanese Association for Laboratory Animal Science Tsukuba May 2013

Inoue K, Ogura A, “Factors determining the efficiency of somatic cell nuclear transfer cloning” the 84th Annual Meeting of the Genetics Society of Japan Yokohama September 2013

Hasegawa A, “Technical tips of reproductive and developmental engineering – embryo transfer” the 15th REG Meeting Tokyo November 2013

Mizutani E, “Analysis of development by live-cell imaging and its prospect” the 15th REG Meeting Tokyo November 2013

Ogura A, “Non-random epigenetic abnormalities associated with somatically cloned embryos” Symposium on Epigenome dynamics and regulation in germ cells, Grant-in-Aid for Scientific Research on Innovative Areas Suita November 2013

Domestic Conferences (Participants): 17

Technology and Development Team for Mammalian Genome Dynamics

Journals in English or non –Japanese (Peer reviewed)

Oikawa M, Matoba S, Inoue K, Kamimura S, Hirose M, Ogonuki N, Shiura H, Sugimoto M, Abe K, Ishino F, Ogura A, “RNAi-mediated knockdown of Xist does not rescue the impaired development of female cloned mouse embryos” J Repord Dev 59 231-237 (2013)

Shiura H, Ikeda R, Lee J, Sato T, Ogonuki N, Hirose M, Ogura A, Ogawa T, Abe K, “Generation of a novel germline stem cell line expressing a germline-specific reporter in the mouse” genesis 51 498-505 (2013)

Maeda I, Okamura D, Tokitake Y, Ikeda M, Kawaguchi H, Mise N, Abe K, Noce T, Okuda A, Matsui Y, "Max is a repressor of germ-cell-related gene expression in mouse embryonic stem cells" Nature communications 4 1754 (2013)

Takada T, Ebata T, Noguchi H, Keane TM, Adams DJ, Narita T, Shin-I T, Fujisawa H, Toyoda A, Abe K, Obata Y, Sakaki Y, Moriwaki K, Fujiyama A, Kohara Y, Shiroishi T, "The ancestor of extant Japanese fancy mouse contributed to the mosaic genomes of classical inbred strains" Genome Res 23 1329-1338 (2013)

Ikeda R, Shiura H, Numata K, Sugimoto M, Kondo M, Mise N, Suzuki M, Greally JM, and Abe K, "Large, male germ cell-specific hypomethylated DNA domains with unique genomic and epigenomic features on the mouse X chromosome" DNA Research 20 549-565 (2013)

Abbasi A, Khalaj M, Akiyama K, Yamanishi H, Kikuchi S, Hirose M, Yuzuriha M, Magari M, Degheidy HA, Abe K, Ogura A, Hashimoto H, Kunieda T, "Rev7 regulates function of DNA polymerase ζ in mouse development" J Biol Chem 288 10459-10471 (2013)

Kuroki S, Matoba S, Akiyoshi M, Matsumura Y, Miyachi H, Mise N, Abe K, Ogura A, Wilhelm D, Koopman P, Nozaki M, Kanai Y, Shinkai Y, Tachibana M, "Epigenetic regulation of sex determination by the histone demethylase Jmjd1a" Science 341 1106-1109 (2013)

Oikawa M, Inoue K, Shiura H, Matoba S, Abe K, Ishino F, Ogura A, "Understanding the X chromosome inactivation cycle in mice: A comprehensive view provided by nuclear transfer" Epigenetics in press. (2014)

Kono H, Tamura M, Osada N, Suzuki H, Abe K, Moriwaki K, Ohta K, Shiroishi T, "Prdm9 polymorphism unveils mouse evolutionary tracks" DNA Research in press (2014)

Kitamura T, Pignatelli M, Suh J, Kohara K, Yoshiki A, Abe K, Tonegawa S, "Regulation of temporal association memory by a distinct cortico-hippocampal circuit" Science in press (2014)

Sato A, Abe K, Yuzuriha M, Fujii S, Takahashi N, Teramoto S, Aoyama H "A novel mutation in the thyroglobulin gene that causes goiter and dwarfism in Wistar Hannover GALAS rats" Mutation Research in press (2014)

Domestic Conferences (Invited)

Abe K "Comprehensive analyses of developmental programs for pluripotent embryonic cells and germ cells in mice" The 9th Environmental Epigenomics Society Tokyo June 2013

Sugimoto M "The role of *Vps52* as a regulator of pluripotent stem cell differentiation through cell-cell interactions" The 85th annual meeting of Genetics Society of Japan Yokohama September 2013

Technology and Development Team for BioSignal Program

Journals in English or non –Japanese (Peer reviewed)

Kurita R, Suda N, Sudo K, Miharada K, Hiroyama T, Miyoshi H, Tani K, Nakamura Y, "Establishment of immortalized human erythroid progenitor cell lines able to produce enucleated red blood cells" PLoS One 8 e59890 (2013)

Kamimura S, Inoue K, Ogonuki N, Hirose M, Oikawa M, Yo M, Ohara O, Miyoshi H, Ogura A, "Mouse cloning using a drop of peripheral blood" Biol Reprod 89 24 1-6 (2013)

Honda A, Hatori M, Hirose M, Honda C, Izu H, Inoue K, Hirasawa R, Matoba S, Togayachi S, Miyoshi H, Ogura A "Naive-like conversion overcomes the limited differentiation capacity of induced pluripotent stem cells" J Biol Chem 288 26157-26166 (2013)

Chiou SS, Wang SS, Wu DC, Lin YC, Kao LP, Kuo KK, Wu CC, Chai CY, Lin CL, Lee CY, Liao YM, Wuputra K, Yang YH, Wang SW, Ku CC, Nakamura Y, Saito S, Hasegawa H, Yamaguchi N, Miyoshi H, Lin CS, Eckner R, Yokoyama KK "Control of Oxidative Stress and Generation of Induced Pluripotent Stem Cell-like Cells by Jun Dimerization Protein 2" Cancers 5 959-984 (2013)

Sakaue-Sawano A, Hoshida T, Yo M, Takahashi R, Ohtawa K, Arai T, Takahashi E, Noda S, Miyoshi H, Miyawaki A "Visualizing developmentally programmed endoreplication in mammals using ubiquitin oscillators" Development 140 4624-4632 (2013)

International Conferences (Participant): 1

Domestic Conferences (Participant): 1

Technology and Development Team for Mouse Phenotype Analysis: Japan Mouse Clinic

Journals in English or non –Japanese (Peer reviewed)

Suzuki T, Furuse T, Yamada I, Motegi H, Kozawa Y, Masuya H, Wakana S "Pheno-Pub: a total support system for the publication of mouse phenotypic data on the web" Mamm Genome 24 473-483 (2013)

Fukuzawa T, Ishida J, Kato A, Ichinose T, Ariestanti DM, Takahashi T, Ito K, Abe J, Suzuki T, Wakana S, Fukamizu A, Nakamura N, Hirose S "Lung Surfactant Levels are Regulated by Ig-Hepta/GPR116 by Monitoring Surfactant Protein D" PLoS One 8 e69451 (2013)

Wang Y, Murakami Y, Yasui T, Wakana S, Kikutani H, Kinoshita T, Maeda Y "Significance of GPI-anchored protein enrichment in lipid rafts for the control of autoimmunity" J Biol Chem 288 25490-25499 (2013)

Umemori J, Takao K, Koshimizu H, Hattori S, Furuse T, Wakana S, Miyakawa T "ENU-mutagenesis mice with a non-synonymous mutation in Grin1 exhibit abnormal anxiety-like behaviors, impaired fear memory, and decreased acoustic startle response" BMC Res Notes 6 203 (2013)

Toki H, Inoue M, Motegi H, Minowa O, Kanda H, Yamamoto N, Ikeda A, Karashima Y, Matsui J, Kaneda H, Miura I, Suzuki T, Wakana S, Masuya H, Gondo Y, Shiroishi T, Akiyama T, Yao R, Noda T "Novel mouse model for Gardner syndrome generated by a large-scale N-ethyl-N-nitrosourea mutagenesis program" Cancer Sci 104 937-44 (2013)

Mizuno Y, Ninomiya Y, Nakachi Y, Iseki M, Iwasa H, Akita M, Tsukui T, Shimozawa N, Ito C, Toshimori K, Nishimukai M, Hara H, Maeba R, Okazaki T, Alodaib AN, Al Amoudi M, Jacob M, Alkuraya FS, Horai Y, Watanabe M, Motegi H, Wakana S, Noda T, Kurochkin IV, Mizuno Y, Schönbach C, Okazaki Y "Tysnd1 deficiency in mice interferes with the peroxisomal localization of PTS2 enzymes, causing lipid metabolic abnormalities and male infertility" PLoS Genet 9 e1003286 (2013)

International Conferences (Invited)

Wakana S "The Japan Mouse Clinic for advance of basic research in lifescience" IMPC conference, Taipei Taiwan May 2013

Wakana S "The Japan Mouse Clinic for advance of basic research in life science" 2013 KALAS International Symposium, Jeju Korea August 2013

International Conferences (Participant): 9

Domestic Conferences (Invited)

Yamada I "Introduction of Behavior pipeline in the Japan Mouse Clinic" 45th Annual meeting of Tsukuba Association Laboratory Animal Science, Tsukuba June 2013

Wakana S, Furuse T. "Gene expression and phenotypic analysis of neonate in mice by maternal malnutrition" 40th Annual Meeting of the Japanese Society of Toxicology Makuhari, June 2013

Tamura M. "Soft Tissue high throughput imaging diagnosis using the Micro CT" 2nd Laboratory Animal Science Symposium Nagoya December 2013

Wakana S. "The trends in standardization of mouse phenotyping and a new a approach to development of disease models" IRDA Symposium 10 Kumamoto March 2014

Domestic Conferences (Participant): 26

Team for Advanced Development and Evalution of Human Disease Models

Journals in English or non –Japanese (Peer reviewed)

Yao R, Kondoh Y, Natsume Y, Yamanaka H, Inoue M, Toki H, Takagi R, Shimizu T, Yamori T, Osada H, Noda T. "A small compound targeting TACC3 revealed its different spatiotemporal contributions for spindle assembly in cancer cells", Oncogene, doi: 10.1038/onc.2013.382 (2013)

Toki H, Inoue M, Motegi H, Minowa O, Kanda H, Yamamoto N, Ikeda A, Karashima Y, Matsui J, Kaneda H, Miura I, Suzuki T, Wakana S, Masuya H, Gondo Y, Shiroishi T, Akiyama T, Yao R, Noda T. "Novel mouse model for Gardner syndrome generated by a large-scale N-ethyl-N-nitrosourea mutagenesis program", Cancer Sci 104 937-944 (2013)

Mizuno Y, Ninomiya Y, Nakachi Y, Iseki M, Iwasa H, Akita M, Tsukui T, Shimozawa N, Ito C, Toshimori K, Nishimukai M, Hara H, Maeba R, Okazaki T, Alodaib AN, Al Amoudi M, Jacob M, Alkuraya FS, Horai Y, Watanabe M, Motegi H, Wakana S, Noda T, Kurochkin IV, Mizuno Y, Schönbach C, Okazaki Y. "Tysnd1 deficiency in mice interferes with the peroxisomal localization of PTS2 enzymes, causing lipid metabolic abnormalities and male infertility", PLoS Genet, 9: e1003286 (2013)

Funabiki M, Kato H, Miyachi Y, Toki H, Motegi H, Inoue M, Minowa O, Yoshida A, Deguchi K, Sato H, Ito S, Shiroishi T, Takeyasu K, Noda T, Fujita T. "Autoimmune Disorders Associated with Gain of Function of the Intracellular Sensor MDA5", Immunity 40 199-212 (2014)

International Conferences (Participant): 10

Domestic Conferences (Participant): 12

Mutagenesis and Genomics Team

Journals in English or non –Japanese (Peer reviewed)

Rivkin E, Almeida SM, Ceccarelli DF, Juang YC, MacLean TA, Srikumar T, Huang H, Dunham WH, Fukumura R, Xie G, Gondo Y, Raught B, Gingras AC, Sicheri F, Cordes SP "The linear ubiquitin-specific deubiquitinase gumby regulates angiogenesis" Nature 498 318-324 (2013)

Katsuragi Y, Anraku J, Nakatomi M, Ida-Yonemochi H, Obata M, Mishima Y, Sakuraba Y, Gondo Y, Kodama Y, Nishikawa A, Takagi R, Ohshima H, Kominami R "Bcl11b transcription factor plays a role in the maintenance of the ameloblast-progenitors in mouse adult maxillary incisors" Mech Dev 130 482-492 (2013)

Ohnishi T, Murata T, Watanabe A, Hida A, Ohba H, Iwayama Y, Mishima K, Gondo Y, Yoshikawa T "Defective craniofacial development and brain function in a mouse model for depletion of intracellular inositol synthesis" J Biol Chem in press

Rivkin E, Almeida SM, Ceccarelli DF, Juang YC, MacLean TA, Srikumar T, Huang H, Dunham WH, Fukumura R, Xie G, Gondo Y, Raught B, Gingras AC, Sicheri F, Cordes SP "The linear ubiquitin-specific deubiquitinase gumby regulates angiogenesis" Nature 498 318-324 (2013)

International Conferences (Invited)

Gondo Y, Fukumura R, Murata T, Makino S "From monogenic to polygenic modeling of human diseases by mouse mutagenesis and next-generation sequencing (NGS)" Joint Conference of Human Genome Meeting 2013 and 21st International Congress of Genetics Singapore April 2013

Gondo Y, "Population and quantitative genomics for experimental mouse genetics." 2nd International Summer Intensive Course of the Mouse Nanjing China July 2013

Gondo Y, "De novo mutations in mouse genome and future perspective" International Symposium on Germline Mutagenesis and Biodiversification Fukuoka March 2014

International Conferences (Participants): 3

Domestic Conferences (Invited)

Ohno M, Sakumi K, Fukumura R, Gondo Y, Iwasaki Y, Ikemura T, Tsuzuki T, Nakabeppu Y, "Analysis of de novo germline mutations derived from oxidative DNA adducts." The 85th Annual Meeting of Genetics Society of Japan Yokohama September 2013 (Best Paper Award)

Murata T, Gondo Y, "β-catenin^{C429S} mice cause infertility with spatiotemporally sustained Wnt signal in internal genitalia." RIKEN CDB Genetic Engineering Seminar Kobe February 2014

Domestic Conferences (Participants): 13

Technology and Development Unit for Knowledge Base of Mouse Phenotype

Journals in English or non-Japanese (Peer reviewed)

Suzuki T, Furuse T, Yamada I, Motegi H, Kozawa Y, Masuya H, Wakana S "Pheno-Pub: a total support system for the publication of mouse phenotypic data on the web" Mamm Genome 24 473-483 (2013)

Makita Y, Kobayashi N, Yoshida Y, Doi K, Mochizuki Y, Nishikata K, Matsushima A, Takahashi S, Ishii M, Takatsuki T, Bhatia R, Khadbaatar Z, Watabe H, Masuya H, Toyoda T "PosMed: ranking genes and bioresources based on semantic web association study" Nucl Acids Res 41 W109-W114 (2013)

Toki H, Inoue M, Motegi H, Minowa O, Kanda H, Yamamoto N, Ikeda A, Karashima Y, Matsui J, Kaneda H, Miura I, Suzuki T, Wakana S, Masuya H, Gondo Y, Shiroishi T, Akiyama T, Yao R, Noda T "Novel mouse model for Gardner syndrome generated by a large-scale N-ethyl-N-nitrosourea mutagenesis program" Cancer Sci 104 937-44 (2013)

International Conferences (Participants): 3

Domestic Conferences (Invited)

Masuya H. "Development of database for retrieval of phenotype associated diseases with phenothypes of mouse and rat", 7th Rat Resource and Research Meeting, Kyoto, January 2014

Domestic Conferences (Participant): 15

Ishii Research Collaborative Group

Journals in English or non-Japanese (Peer reviewed)

Takao K, Kobayashi K, Hagihara H, Ohira K, Shoji H, Hattori S, Koshimizu H, Umemori J, Toyama K, Nakamura HK, Kuroiwa M, Maeda J, Atsuzawa K, Esaki K, Yamaguchi S, Furuya S, Takagi T, Walton NM, Hayashi N, Suzuki H, Higuchi M, Usuda N, Suhara T, Nishi A, Matsumoto M, Ishii S, Miyakawa T, "Deficiency of Schnurri-2, an MHC enhancer binding protein, induces mild chronic inflammation in the brain and confers molecular, neuronal, and behavioral phenotypes related to schizophrenia" Neuropsychopharmacology 38 1409-1425 (2013)

Zaman MM, Nomura T, Takagi T, Okamura T, Jin W, Shinagawa T, Tanaka Y, Ishii S "Ubiquitination-deubiquitination by the TRIM27-USP7 complex regulates tumor necrosis factor alpha-induced apoptosis" Mol Cell Biol 33 4971-4984 (2013)

Zaman MM, Shinagawa T, Ishii S, "Trim27-deficient mice are susceptible to streptozotocin-induced diabetes" FEBS Open Bio 4 60-64 (2013)

Shinagawa T, Takagi T, Tsukamoto D, Tomaru C, Huynh LM, Sivaraman P, Kumarevel T, Inoue K, Nakato R, Katou Y, Sado T, Takahashi S, Ogura A, Shirahige K, Ishii S, "Histone variants enriched in oocytes enhance reprogramming to induced pluripotent stem cells" Cell Stem Cell 14 217-227 (2014).

International Conferences (Invited)

Ishii S, "Inheritance of stress-induced chromatin alterations" Gordon Conference on Epigenetics: Mechanisms and Implications, Smithfield, RI, USA, August 2013

Ishii S, "Inheritance of stress-induced epigenome changes" Small RNAs to Stem Cells & Epigenetic Reprograming Asia-2013 Meeting, Tokyo, November 2013

International Conferences (Participants): 4
Domestic Conferences (Participants): 4

Shinozaki Research Collaborative Group

Journals in English or non-Japanese (Peer reviewed)

Umezawa T, Sugiyama N, Takahashi F, Anderson J C, Ishihama Y, Peck S C, Shinozaki K "Genetics and phosphoproteomics reveal a protein phosphorylation network in the abscisic acid signaling pathway in *Arabidopsis thaliana*" Sci Signal 6 rs8 (2013)

Sakurai T, Mochida K, Yoshida T, Akiyama K, Ishitani M, Seki M, Shinozaki K "Genome-wide discovery and information resource development of DNA polymorphisms in cassava" PloS one 8 e74056 (2013)

Mochida K, Uehara-Yamaguchi Y, Takahashi F, Yoshida T, Sakurai T, Shinozaki K, "Large-scale collection and analysis of full-length cDNAs from *Brachypodium distachyon* and integration with pooideae sequence resources" PloS one 8 e75265 (2013)

Kawafune K, Sato M, Toyooka K, Nozaki H, "Ultrastructure of the rickettsial endosymbiont "MIDORIKO" in the green alga Carteria cerasiformis as revealed by high-pressure freezing and freeze-substitution fixation" Protoplasma 250 949-953 (2013)

Behnam B, Iuchi S, Fujita M, Fujita Y, Takasaki H, Osakabe Y, Yamaguchi-Shinozaki K, Kobayashi M, Shinozaki K "Characterization of the promoter region of an *Arabidopsis* gene for 9-*cis*-epoxycarotenoid dioxygenase involved in dehydration-inducible transcription" DNA Res 20 315-324 (2013)

Ota Y, Ishiguro S, Aoyama E, Aiba R, Iwashiro R, Tanabata T, Takamure I, Fujino K, Kishima Y, "Isolation of a mafor genetic interaction associated with an extreme phenotype using assorted F2 population in rice" Mol Breeding DOI 10.1007/s11032-013-9998-6

Osakabe K, Nishizawa-Yokoi A, Ohtsuki N, Osakabe Y, Toki S, "A mutated cytosine deaminase gene, codA (D314A), as an efficient negative selection marker for gene targeting in rice" Plant Cell Physiol (2013)

Osakabe Y, Arinaga N, Umezawa T, Katsura S, Nagamachi K, Tanaka H, Ohiraki H, Yamada K, Seo S U, Abo M, Yoshimura E, Shinozaki K, Yamaguchi-Shinozaki K "Osmotic stress responses and plant growth controlled by potassium transporters in Arabidopsis" Plant Cell 25 609-624 (2013)

Myouga F, Akiyama K, Tomonaga Y, Kato A, Sato Y, Kobayashi M, Nagata N, Sakurai T, Shinozaki K "The chloroplast function database II: a comprehensive collection of homozygous mutants and their phenotypic/genotypic traits for nuclear-encoded chloroplast proteins" Plant Cell Physiol 54 e2 (2013)

Hanada K, Higuchi-Takeuchi M, Okamoto M, Yoshizumi T, Shimizu M, Nakaminami K, Nishi R, Ohashi C, Iida K, Tanaka M, Horii Y, Kawashima M, Matsui K, Toyoda T, Shinozaki K, Seki M, Matsui M "Small open reading frames associated with morphogenesis are hidden in plant genomes" Proc Natl Acad Sci U S A 110 2395-2400 (2013)

Mizoi J, Ohori T, Moriwaki T, Kidokoro S, Todaka D, Maruyama K, Kusakabe K, Osakabe Y, Shinozaki K, Yamaguchi-Shinozaki K "GmDREB2A;2, a canonical DEHYDRATION-RESPONSIVE ELEMENT-BINDING PROTEIN2-type transcription factor in soybean, is posttranslationally regulated and mediates dehydration-responsive element-dependent gene expression" Plant Physiol 161 346-361 (2013)

Mochida K, Yoshida T, Sakurai T, Yamaguchi-Shinozaki K, Shinozaki K, Tran L S "TreeTFDB: an integrative database of the transcription factors from six economically important tree crops for functional predictions and comparative and functional genomics" DNA Res 20 151-162 (2013)

Sakurai T, Yamada Y, Sawada Y, Matsuda F, Akiyama K, Shinozaki K, Hirai M Y, Saito K "PRIMe update: innovative content for plant metabolomics and integration of gene expression and metabolite accumulation" Plant Cell Physiol 54 e5 (2013)

Asad J, Maruyama K, Todaka D, Kidokoro S, Abo M, Yoshimura E, Shinozaki K, Nakashima K, Yamaguchi-Shinozaki K "OsTZF1, a CCCH-tandem zinc finger protein, confers delayed senescence and stress tolerance in rice by regulating stress-related genes" Plant Physiol 161 1202-1216 (2013)

Sano N, Masaki S, Tanabata T, Yamada T, Hirasawa T, Kanekatsu M "RNA-binding proteins associated with desiccation during seed development in rice" Biotechnology Letters 35 1945-1952 (2013)

Yamauchi D, Tamaoki D, Hayami M, Takeuchi M, Karahara I, Sato M, Toyooka K, Nishioka H, Terada Y, Uesugi K, Takano H, Kagoshima Y, Mineyuki Y "Micro-CT observations of the 3D distribution of calcium oxalate crystals in cotyledons during maturation and germination in Lotus miyakojimae seeds" Microscopy (Oxf) 62 353-361 (2013)

Ha C V, Le D T, Nishiyama R, Watanabe Y, Sulieman S, Tran U T, Mochida K, Dong N V, Yamaguchi-Shinozaki K, Shinozaki K, Tran L S "The Auxin Response Factor Transcription Factor Family in Soybean: Genome-Wide Identification and Expression Analyses During Development and Water Stress" DNA Res 20 511-524 (2013)

Sano N, Masaki S, Tanabata T, Yamada T, Hirasawa T, Kanekatsu M "Proteomic analysis of stress-related proteins in rice seeds during the desiccation phase of grain filling" Plant Biotechnol-Nar 30 147-156 (2013)

Higashi Y, Ohama N, Ishikawa T, Katori T, Shimura A, Kusakabe K, Yamaguchi-Shinozaki K, Ishida J, Tanaka M, Seki M, Shinozaki K, Sakata Y, Hayashi T, Taji T "HsfA1d, a Protein Identified via FOX Hunting Using Thellungiella salsuginea cDNAs Improves Heat Tolerance by Regulating Heat-Stress-Responsive Gene Expression" Mol Plant 6 411-422 (2013)

Nishiyama R, Watanabe Y, Leyva-Gonzalez M A, Van Ha C, Fujita Y, Tanaka M, Seki M, Yamaguchi-Shinozaki K, Shinozaki K, Herrera-Estrella L, Tran L S "Arabidopsis AHP2, AHP3, and AHP5 histidine phosphotransfer proteins function as redundant negative regulators of drought stress response" Proc Natl Acad Sci U S A 110 4840-4845 (2013)

Mizobuchi R, Sato H, Fukuoka S, Tanabata T, Tsushima S, Imbe T, Yano M "Mapping a quantitative trait locus for resistance to bacterial grain rot in rice" Rice 6 13 (2013)

Nasr Esfahani M, Sulieman S, Schulze J, Yamaguchi-Shinozaki K, Shinozaki K, Tran L S "Approaches for enhancement of N2 fixation efficiency of chickpea (*Cicer arietinum* L.) under limiting nitrogen conditions" Plant Biotechnol J DOI: 10.1111/pbi.12146 (2013)

Nakabayashi R, Yonekura-Sakakibara K, Urano K, Suzuki M, Yamada Y, Nishizawa T, Matsuda F, Kojima M, Sakakibara H, Shinozaki K, Michael A J, Tohge T, Yamazaki M, Saito K, "Enhancement of oxidative and drought tolerance in Arabidopsis by overaccumulation of antioxidant flavonoids" Plant J DOI: 10.1111/tpj.12388 (2013)

Liu S, Wang X, Wang H, Xin H, Yang X, Yan J, Li J, Tran L S, Shinozaki K, Yamaguchi-Shinozaki K, Qin F "Genome-Wide Analysis of Genes and Their Association with Natural Variation in Drought Tolerance at Seedling Stage of L" PLoS Genet 9 e1003790 (2013)

Hashikami H, Tanabata T, Hirose F, Hasanah N, Sawase K, Nobuhara H "An algorithm for recomputing concepts in microarray data analysis by biological lattice" Jouranal of Advanced Computational Intelligence and Intelligent Informatics 17 761-771 (2013)

Kobayashi Y, Ohyama Y, Ito H, Iuchi S, Fujita M, Zhao C R, Tanveer T, Ganesan M, Kobayashi M, Koyama H "STOP2 Activates Transcription of Several Genes for Al- and Low pH-Tolerance that Are Regulated by STOP1 in Arabidopsis" Mol Plant 7 311-322 (2013)

Nakashima K, Jan A, Todaka D, Maruyama K, Goto S,

Shinozaki K, Yamaguchi-Shinozaki K "Comparative functional analysis of six drought-responsive promoters in transgenic rice" Planta 239 47-60 (2013)

Morimoto K, Mizoi J, Qin F, Kim J S, Sato H, Osakabe Y, Shinozaki K, Yamaguchi-Shinozaki K "Stabilization of *Arabidopsis* DREB2A is required but not sufficient for the induction of target genes under conditions of stress" PloS one 8 e80457 (2014)

Akiyama K, Kurotani A, Iida K, Kuromori T, Shinozaki K, Sakurai T "RARGE II: An Integrated Phenotype Database of Arabidopsis Mutant Traits Using a Controlled Vocabulary" Plant Cell Physiol 55 e4 (2014)

Kurotani A, Tokmakov AA, Kuroda Y, Fukami Y, Shinozaki K, Sakurai T, "Correlations between protein disorder and post-translational modifications in plants" Bioinformatics doi: 10.1093/bioinformatics/btt762 (2014)

Ha C V, Leyva-Gonzalez M A, Osakabe Y, Tran U T, Nishiyama R, Watanabe Y, Tanaka M, Seki M, Yamaguchi S, Dong N V, Yamaguchi-Shinozaki K, Shinozaki K, Herrera-Estrella L, Tran L S, "Positive regulatory role of strigolactone in plant responses to drought and salt stress" Proc Natl Acad Sci U S A 111 851-856 (2014)

International Conferences (Invited)

Shinozaki K, "Regulatory gene network in drought stress response and tolerance" Joint Conference of HGM 2013 and 21st International Congress of Genetics on Genetics & Genomics, Maria Bay Stands Singapore, April, 13-18 2013

Fujita M, Shinozaki K, "Transport of paraquat in plants is mediated by a polyamine transporter" Gordon Research Conference Polyamines New Hampshire, USA, June 16-21 2013

Shinozaki K, "Regulatory gene networks in drought stress response and tolerance" 24th International Conference on Arabidopsis Research (ICAR 2013), Sydney Australia, June 24-28 2013

Yamaguchi-Shinozaki K, Shinozaki K, "Plant responses and adaptation to water stress" Seventh EPSO Conference, Porto Heli Greece, September 1-4 2013

Shinozaki K, Yamaguchi-Shinozaki K, "Useful dehydration-inducible genes for the development of drought tolerant crops" InterDrought-IV Conference, Western Australia, September 2-6 2013

International Conferences (Participant): 20

Domestic Conferences (Invited)

Tanabata T, "Development of high-throughput phenotyping technology for plant science using information technology" Technical Workshop of Graduate School of Information Science & Technology in Hokkaido University, Sapporo, June 28 2013

Osakabe Y, "Site-directed mutagenesis and genome engineering of the plant stress responses by genome editing tools, ZFN, TALEN, and CRISPR/CAS9" Seminar in the University of Tokushima, Tokushima, September 17 2013

Isobe S, Tanabata T, "Development of phenotyping technology for next-generation crop breeding using digital technology" Symposium on Utilization of Genome Information for Next-Generation Crop Breeding, Tsukuba, October 18 2013

Tanabata T, "Development and application of phenotyping technology for plant science and crop breeding" The 178th Technical Workshop of Agriculture, Forestry and Fisheries Research Council, Tsukuba, Dec 13 2013

Osakabe Yuriko, "Site-directed genome engineering of higher plants by genome editing tools, CFN, TALEN, and CRISPR/CAS9" RIKEN CSRS New Plant Breeding Techniques (NBT) Seminar Series No.1, Yokohama, Dec 19 2013

Osakabe Y, "Genome engineering of the plant stress responses by ZFN, TALEN, and CRISPR/CAS9" Seminar in Kyoto University, Kyoto, January 15 2014

Osakabe Y, "Site-directed genome engineering of higher plants by genome editing tools, ZFN, TALEN, and CRISPR/CAS9" The 55th Annual Meeting of JSPP (Symposium), Toyama, March 2014

Mochida K, Uehara Y, Takahashi F, Yoshida T, Sakurai T, Shinozaki K, "Large-Scale Collection and Analysis of Full-Length cDNAs from *Brachypodium distachyon* and Integration with Pooideae Sequence Resources" The 55th Annual Meeting of JSPP (Symposium), Toyama, March 2014

Todaka D, Kudo M, Zhao Y, Ariga Y, Honda T, Sato H, Shinozaki K, Yamaguchi-Shinozaki K, "Growth regulatory mechanism related to cell elongation under abiotic stress conditions" The 55th Annual Meeting of JSPP (Symposium), Toyama, March 2014

Domestic Conferences (Participant): 41