

研究発表

Publications

Experimental Animal Division

Journals in English or non-Japanese (Peer reviewed)

Takada T, Yoshiki A, Obata Y, Yamazaki Y, Shiroishi T
“NIG_MoG: a mouse genome navigator for exploring interspecific genetic polymorphisms” *Mamm Genome*, 26 331-337 (2015)

Sugimoto M, Kondo M, Koga Y, Shiura H, Ikeda R, Hirose M, Ogura A, Murakami A, Yoshiki A, Chuva de Sousa Lopes SM, Abe K “A simple and robust method for establishing homogeneous mouse epiblast stem cell lines by wnt inhibition” *Stem Cell Reports*, 4 744-757. (2015)

Ike F, Sakamoto M, Ohkuma M, Kajita A, Matsushita S, Kokubo T “*Filobacterium rodentium* gen. nov., sp. nov., a member of Filobacteriaceae fam. nov. within the phylum Bacteroidetes, and includes microaerobic filamentous bacterium isolated from rodent respiratory disease specimens” *International Journal of Systematic and Evolutionary Microbiology*, doi: 10.1099/ijsem.0.000685. (2015)

International Conferences (Invited)

Yoshiki A “High Quality Mutant Mouse Resources for Global Biomedical Researches” Korean Association for Laboratory Animal Science 2015 International Symposium, Incheon Korea, August 2015.

International Conferences (Participants): 1

Domestic Conferences (Participants): 4

Experimental Plant Division

Journals in English or non-Japanese (Peer reviewed)

Miyazaki Y, Abe H, Takase T, Kobayashi M, Kiyosue T
“Overexpression of LOV KELCH PROTEIN 2 confers dehydration tolerance and is associated with enhanced expression of dehydration-inducible genes in *Arabidopsis thaliana*” *Plant Cell Rep* 34 843-852 (2015)

Fujimoto T, Mizukubo T, Abe T, Seo S “Sclareol induces plant resistance to root-knot nematode partially through

ethylene-dependent enhancement of lignin accumulation” *MPM* 28 398-407 (2015)

Tomitaka Y, Abe H, Sakurai T, Tsuda S, “Preference of the vector thrips *Frankliniella occidentalis* for plants infected with thrips-non-transmissible tomato spotted wilt virus” *J Applied Entomology* 139 250-259 (2015)

Tokizawa M, Kobayashi Y, Saito T, Kobayashi M, Iuchi S, Nomoto M, Tada Y, Yamamoto YY, Koyama H “Sensitive to proton rhizotoxicity1, calmodulin binding transcription activator2, and other transcription factors are involved in aluminum-activated malate transporter1 expression” *Plant Physiol* 167 991-1003 (2015)

Kinoshita A, ten Hove CA, Tabata R, Yamada M, Shimizu N, Ishida T, Yamaguchi K, Shigenobu S, Takebayashi Y, Iuchi S, Kobayashi M, Kurata T, Wada T, Seo M, Hasebe M, Blilou I, Fukuda H, Scheres B, Heidstra R, Kamiya Y, Sawa S “I A plant U-box protein, PUB4, regulates asymmetric cell division and cell proliferation in the root meristem” *Development* 142 444-53 (2015)

Tokizawa D, Watanabe N, Ghosh TK, Saruhashi M, Suzuki A, Ishiyama K, Somemiya S, Kobayashi M, Sakata Y “Epoxy-carotenoid-mediated synthesis of abscisic acid in *Physcomitrella patens* implicating conserved mechanisms for acclimation to hyperosmosis in embryophytes” *New Phytol* 206 209-19 (2015)

International Conferences (Invited)

Kobayashi M “Quality control that kwps reliability of research resource” 7th Asian Network of Research Resource Center Meeting Incheon, September 2015

Domestic Conferences (Participants): 9

Cell Engineering Division

Journals in English or non-Japanese (Peer reviewed)

Yamada T, Abei M, Danjoh I, Shirota R, Yamashita T, Hyodo I, Nakamura Y, “Identification of a unique hepatocellular carcinoma line, Li-7, with CD13(+) cancer stem cells hierarchy

and population change upon its differentiation during culture and effects of sorafenib” *BMC Cancer* 15: 260. doi: 10.1186/s12885-015-1297-7 (2015)

Canver MC, Smith EC, Sher F, Pinello L, Sanjana NE, Shalem O, Chen DD, Schupp PG, Vinjamur DS, Garcia SP, Luc S, Kurita R, Nakamura Y, Fujiwara Y, Maeda T, Yuan GC, Zhang F, Orkin SH, Bauer DE, “BCL11A enhancer dissection by Cas9-mediated in situ saturating mutagenesis” *Nature* 527 192-197 (2015)

Kim YH, Kim HO, Baek EJ, Kurita R, Cha HJ, Nakamura Y, Kim H, “Rh D blood group conversion using transcription activator-like effector nuclease” *Nat Commun* 6: 7451 doi:10.1038/ncomms8451 (2015)

Matsuo H, Yamamoto K, Nakaoka H, Nakayama A, Sakiyama M, Chiba T, Takahashi A, Nakamura T, Nakashima H, Takada Y, Danjoh I, Shimizu S, Abe J, Kawamura Y, Terashige S, Ogata H, Tatsukawa S, Yin G, Okada R, Morita E, Naito M, Tokumasu A, Onoue H, Iwaya K, Ito T, Takada T, Inoue K, Kato Y, Nakamura Y, Sakurai Y, Suzuki H, Kanai Y, Hosoya T, Hamajima N, Inoue I, Kubo M, Ichida K, Ooyama H, Shimizu T, Shinomiya N, “Genome-wide association study of clinically defined gout identifies multiple risk loci and its association with clinical subtypes” *Ann Rheum Dis* doi: 10.1136/annrheumdis-2014-206191. [Epub ahead of print] PMID:25646370

Andrews PW, Baker D, Benvenisty N, Miranda B, Bruce K, Brüstle O, Choi M, Choi Y-M, Crook JM, de Sousa PA, Dvorak P, Freund C, Firpo M, Furue MK, Gokhale P, Ha H-Y, Han E, Haupt S, Healy L, Hei DJ, Hovatta O, Hunt C, Hwang S-M, Inamdar MS, Isasi RM, Jaconi M, Jekerle V, Kamthorn P, Kibbey MC, Knezevic I, Knowles BB, Koo S-K, Laabi Y, Leopoldo L, Liu P, Lomax GP, Loring JF, Ludwig TE, Montgomery K, Mummery C, Nagy A, Nakamura Y, Nakatsuji N, Oh S, Oh S-K, Otonkoski T, Pera M, Peschanski M, Pranke P, Rajala KM, Rao M, Ruttachuk R, Reubinoff B, Ricco L, Rooke H, Sipp D, Stacey GN, Suemori H, Takahashi TA, Takada K, Talib S, Tannenbaum S, Yuan B-Z, Zeng F, Zhou Q, “Points to consider in the development of seed stocks of pluripotent stem cells for clinical applications: International Stem Cell Banking Initiative (ISCB)” *Regen Med* 10: 1-44 (2015)

Lizio, M., Harshbarger, J., Shimoji, H., Severin, J., Kasukawa, T., Sahin, S., Abugessaisa, I., Fukuda, S., Hori, F., Ishikawa-Kato, S., Mungall, C.J., Arner, E., Baillie, J.K., Bertin, N., Bono, H., de Hoon, M., Diehl, A.D., Dimont, E., Freeman, T.C., Fujieda, K., Hide, W., Kaliyaperumal, R., Katayama, T., Lassmann, T., Meehan, T.F., Nishikata, K., Ono, H., Rehli, M., Sandelin, A., Schultes, E.A., 't Hoen, PA, Tatum Z, Thompson M, Toyoda T, Wright DW, Daub CO, Itoh M, Carninci P, Hayashizaki Y, Forrest AR, Kawaji H, FANTOM consortium, “Gateways to the FANTOM5 promoter level mammalian

expression atlas” *Genome Biol.* 16: 22. doi: 10.1186/s13059-014-0560-6 (2015)

Lizio M, Ishizu Y, Itoh M, Lassmann T, Hasegawa A, Kubosaki, A, Severin J, Kawaji H, Nakamura Y, the FANTOM consortium, Suzuki H, Hayashizaki Y, Carninci P, Forrest AR “Mapping mammalian cell-type-specific transcriptional regulatory networks using KD-CAGE and ChIP-seq data in the TC-Y1K cell line. *Front Genet.* 6: 331. doi: 10.3389/fgene.2015.00331 (2015)

International Conferences (Participants): 1

Domestic Conferences (Invited)

中村幸夫

「疾患研究における細胞バンク事業の役割」第2回細胞アッセイ研究会 東京 2016年1月19日

Domestic Conferences (Participants): 2

Gene Engineering Division

International Conferences (Participants): 2

Domestic Conferences (Participants): 4

Microbe Division Japan collection of Microorganisms

Journals in English or non-Japanese (Peer reviewed)

Ohkuma M, Noda S, Hattori S, Iida T, Yuki M, Starns D, Inoue J, Darby AC, Hongoh Y, “Acetogenesis from H₂ plus CO₂ and nitrogen fixation by an endosymbiotic spirochete of a termite-gut cellulolytic protist” *Proc Natl Acad Sci USA* 112 10224-10230 (2015)

Kato S, Ikehata K, Shibuya T, Urabe T, Ohkuma M, Yamagishi A, “Potential for biogeochemical cycling of sulfur, iron and carbon within massive sulfide deposits below the seafloor” *Environ Microbiol* 17 1817-1835 (2015)

Yuki M, Kuwahara H, Shintani M, Izawa K, Sato T, Starns D, Hongoh Y, Ohkuma M, “Dominant ectosymbiotic bacteria of cellulolytic protists in the termite gut also have the potential to digest lignocellulose” *Environ Microbiol* 17 4942-4953 (2015)

Takashima M, Manabe R, Iwasaki W, Ohyama A, Ohkuma M, Sugita T, “Selection of orthologous genes for construction of a highly resolved phylogenetic tree and clarification of the phylogeny of Trichosporonales species” *PLoS ONE* 10 e0131217 (2015)

Al-Saari N, Gao F, Rohul AAKM, Sato K, Sato K, Mino S, Suda W, Oshima K, Hattori M, Ohkuma M, Meirelles PM, Thompson FL, Thompson C, Filho GMA, Gomez-Gil B, Sawabe T, Sawabe T, “Advanced microbial taxonomy combined with genome-based approaches reveals that *Vibrio astriarenae* sp. nov., an agarolytic marine bacterium, forms a new clade in *Vibrionaceae*” PLoS ONE 10 e0136279 (2015)

Abbas S, Ahmed I, Iida T, Lee YJ, Busse HJ, Fujiwara T, Ohkuma M, “A heavy-metal tolerant novel bacterium, *Alcaligenes pakistanensis* sp. nov., isolated from industrial effluent in Pakistan” Antonie van Leeuwenhoek 108 859-870 (2015)

Abbas S, Ahmed I, Kudo T, Iqbal M, Lee YJ, Fujiwara T, Ohkuma M, “A heavy metal tolerant novel bacterium, *Bacillus malikii* sp. nov., isolated from tannery effluent wastewater” Antonie van Leeuwenhoek 108 1319-1330 (2015)

Thamacharoensuk T, Kitahara M, Ohkuma M, Thongchul N, Tanasupawat S, “*Sporolactobacillus shoreae* sp. nov. and *Sporolactobacillus spathodeae* sp. nov., two spore-forming lactic acid bacteria isolated from tree barks in Thailand” Int J Syst Evol Microbiol 65 1220-1226 (2015)

Sakamoto M, Tanaka Y, Benno Y, Ohkuma M, “*Parabacteroides faecis* sp. nov., isolated from human faeces” Int J Syst Evol Microbiol 65 1342-1346 (2015)

Minegishi H, Echigo A, Shimane Y, Kamekura M, Itoh T, Ohkuma M, Usami R, “*Halococcus agarilyticus* sp. nov., an agar-degrading haloarchaeon isolated from commercial salt” Int J Syst Evol Microbiol 65 1634-1639 (2015)

Minegishi H, Echigo A, Kuwahara A, Shimane Y, Kamekura M, Itoh T, Ohkuma M, Usami R, “*Halocalculus aciditolerans* gen. nov., sp. nov., an acid-tolerant haloarchaeon isolated from commercial salt” Int J Syst Evol Microbiol 65 1640-1645 (2015)

Tohno M, Kitahara M, Irisawa T, Ohmori H, Masuda T, Ohkuma M, Tajima K, “*Lactobacillus mixtipabuli* sp. nov. isolated from total mixed ration silage” Int J Syst Evol Microbiol 65 1981-1985 (2015)

Kondo Y, Minegishi H, Echigo A, Shimane Y, Kamekura M, Itoh T, Ohkuma M, Takahashi-Ando N, Fukushima Y, Yoshida Y, Usami R, “*Halorubrum gandharaense* sp. nov., an alkaliphilic haloarchaeon from commercial rock salt” Int J Syst Evol Microbiol 65 2345-2350 (2015)

Sakamoto M, Li D, Shibata Y, Takeshita T, Yamashita Y, Ohkuma M, “*Porphyromonas pasteri* sp. nov., isolated from human saliva” Int J Syst Evol Microbiol 65 2511-2515 (2015)

Iino T, Sakamoto M, Ohkuma M, “*Prolixibacter denitrificans*

sp. nov., an iron-corroding, facultatively aerobic, nitrate-reducing bacterium isolated from crude oil, and emended descriptions of the genus *Prolixibacter* and *Prolixibacter bellariivorans*” Int J Syst Evol Microbiol 65 2865-2869 (2015)

Shimane Y, Minegishi H, Echigo A, Kamekura M, Itoh T, Ohkuma M, Tsubouchi T, Usui K, Maruyama T, Usami R, Hatada Y, “*Halarchaeum grantii* sp. nov., a moderately acidophilic haloarchaeon isolated from a commercial salt sample” Int J Syst Evol Microbiol 65 3830-3835 (2015)

Klykleung N, Tanasupawat S, Pittayakhajonwut P, Ohkuma M, Kudo T, “*Amycolatopsis stemonae* sp. nov., isolated from Thai medicinal plant” Int J Syst Evol Microbiol 65 3894-3899 (2015)

Saputra S, Irisawa T, Sakamoto M, Kitahara M, Sulistiani S, Yulinery T, Ohkuma M, Dinoto A, “*Bacteroides caecigallinarum* sp. nov., isolated from caecum of Indonesian chicken” Int J Syst Evol Microbiol 65 4341-4346 (2015)

Phongsopitanun W, Kudo T, Mori M, Shiomi K, Pittayakhajonwut P, Suwanborirux K, Tanasupawat S, “*Micromonospora fluostatini* sp. nov., isolated from marine sediment” Int J Syst Evol Microbiol 65 4417-4423 (2015)

Dekio I, Culak R, Misra R, Gaulton T, Fang M, Sakamoto M, Ohkuma M, Oshima K, Hattori M, Klenk HP, Rajendram D, Gharbia SE, Shah HN, “Dissecting the taxonomic heterogeneity within *Propionibacterium acnes*: proposal for *Propionibacterium acnes* subsp. *acnes* subsp. nov. and *Propionibacterium acnes* subsp. *elongatum* subsp. nov.” Int J Syst Evol Microbiol 65 4776-4787 (2015)

Brady C, Irisawa T, Iino T, Ohkuma M, Arnold D, Denman S, “*Gibbsiella papilionis* Kim et al. 2013 is a later heterotypic synonym of *Gibbsiella dentisursi* Saito et al. 2013” Int J Syst Evol Microbiol 65 4788-4791 (2015)

Phongsopitanun W, Kudo T, Ohkuma M, Suwanborirux K, Tanasupawat S, “*Dactylosporangium sucinum* sp. nov., isolated from Thai peat swamp forest soil” J Antibiot 68 379-384 (2015)

Sakamoto M, Lapidus AL, Han J, Trong S, Haynes M, Reddy TBK, Mikhailova N, Huntemann M, Pati A, Ivanova NN, Pukall R, Markowitz VM, Woyke T, Klenk HP, Kyrpides NC, Ohkuma M, “High quality draft genome sequence of *Bacteroides barnesiae* type strain BL2^T (DSM18169^T) from chicken caecum” Stand Genomic Sci 10 48 (2015)

Wang Q-M, Groenewald M, Takashima M, Theelen B, Han P.-J, Liu X-Z, Boekhout T, Bai F-Y, “Phylogeny of yeasts and related filamentous fungi within *Pucciniomycotina* determined from multigene sequence analyses” Stud Mycol 81 27-53 (2015)

International Conferences (Invited)

Ohkuma M, "Activities of RIKEN BRC-JCM to contribute to microbial researches in Asia" The 7th ANRRC International Meeting, Incheon Korea, September 2015

Ohkuma M, "CO₂- and N₂-fixing endosymbionts of termite-gut cellulolytic protists" The 2nd International Symposium Matryoshka-type Evolution of Eukaryotic Cells, Ibaraki Japan, September 2015

Itoh T, "ACM member report: Japan Collection of Microorganisms (JCM), RIKEN BioResource Center" The 12th Asian Consortium for the Conservation and Sustainable Use of Microbial Resources Symposium, Jakarta, Indonesia, October 2015

International Conferences (Participants): 14

Domestic Conferences (Invited)

Endoh R, "Finding hotspots of microbial resources in forest — Yeasts associated with Coleopteran beetles" 18th Eukaryotic Microbes Meeting, Hiroshima Japan, June 2015

Ohkuma M, "Symbioses and evolution of endosymbiotic bacteria of termite-gut protists" 17th Annual Meeting of Society of Evolutionary Studies, Japan, Tokyo Japan, August 2015

Oshida Y, "Current situation in the deposition of microorganisms in the JCM and improvements to the acceptance procedure" The 22nd annual meeting of Japan Society for Microbial Resources and Systematics, Tottori Japan, September 2015

Endoh R, Exploring the unwatched relationship between the forest pests and yeasts" Joint Session of 80th Yeast Research Society of Japan & 3rd NBRP-Yeast Symposium, Nara Japan, September 2015

Itoh T, "Cryopreservation of archaea and related bacteria" Cryopreservation Conference 2015, Okazaki Japan, October 2015

Iino T, "Microbiologically influenced corrosion: Novel nitrate-reducing bacterium, *Prolixibacter denitrificans*, induced metallic iron corrosion under anaerobic condition" 2015 Japan Society of Microbial Ecology annual meeting, Tsuchiura Japan, October 2015

Iino T, "Candidate Methanogranum caenicola: A novel methanogenic archaeum affiliated with the uncultured lineage Group E2" 2015 Japan Society of Microbial Ecology annual meeting, Tsuchiura Japan, October 2015

Ohkuma M, "Endosymbioses and efficient metabolic

interactions with termite-gut cellulolytic protists" BMB 2015 Biochemistry and Molecular Biology, Kobe Japan, December 2015

Domestic Conferences (Participants):14

Bioresource Information Division

Journals in English or non-Japanese (Peer reviewed)

S. Oota, "The Origin of Dance: Evolutionary Significance on Ritualized Movements of Animals," in Dance Notations and Robot Motion. vol. 111, J.-P. Laumond and N. Abe, Eds., ed: Springer, 2015.

International Conferences (Participants): 1

Domestic Conferences (Invited)

太田聡史, "神経筋骨格モデルを用いた突然変異マウスの運動機能解析," presented at the 第7回農医学セミナー「遺伝子・進化・行動研究の挑戦—情報科学的アプローチ—」, 茨城大学農学部, 2016.

S. Oota, Y. Ikegami, K. Takeichi, K. Ayusawa, A. Murai, K. N., et al., "Towards a fine-grained mouse neuro-musculoskeletal model (Invited)," in 理研シンポジウム・3次元内部構造顕微鏡による3次元計測の生物・材料分野への挑戦と展開, 理化学研究所, 和光, 2015.

S. Oota, Y. Ikegami, N. Kakusho, A. K., A. Murai, A. Yoshiki, et al., "The homology mapping: interspecies functional morphing," presented at the INCF Japan Node International Workshop: Advances in Neuroinformatics 2015, Research Center for Advanced Science and Technology (RCAST) The University of Tokyo, JAPAN, 2015.

S. Oota "Neuromuscular Modeling: Bridging Mouse and Human (Invited)," in Invitational seminar, Simon Hall 022, Washington University, MO, USA, 2015.

S. Oota "Neuromuscular Modeling by Bridging Mouse and Human (Invited)," in Japan-EU Workshop on Neurorobotics, Ichijyo Hall, Yayoi Auditorium, The University of Tokyo, Tokyo, 2015.

Domestic Conferences (Participants): 6