

# Researches in BioResource Center

## 1. Collaborative Research

Theme	Representative	Collaborate with;
Technology development for preservation of rat early embryos and gametes	Yuichi OBATA (Director, BRC)	Dr. Kyoji HIOKI (The Central Institute for Experimental Animals)
Survey of genetic variations in biological functions among wild mice and development of novel strains	Yuichi OBATA (Director, BRC) Atsushi YOSHIKI (Head, Experimentai Animal Div.)	Dr. Yasunori YAMAGUCHI (Prof., Fukuyama Univ.)
Development of novel strains using Japanese wild-derived MSM/Ms strain to search modifier genes for susceptibility of gut tumors	Yuichi OBATA (Director, BRC)	Dr. Mieko OKAMOTO (The Tokyo Metropolitan Institute of Medical Science)
Creation of a mouse model carrying transplanted human mesothelioma	Atsushi YOSHIKI (Head, Experimentai Animal Div.)	Dr. Yoshitaka SEKIDO (Aichi Cancer Center Research Institute)
Studies on the safety of animal experiment workers against zoonosis	Atsushi YOSHIKI (Head, Experimentai Animal Div.)	Dr. Shigeru MORIKAWA (National Institute of Infectious Diseases)
Studies on zoonotic virus associated with wild mice	Atsushi YOSHIKI (Head, Experimentai Animal Div.)	Dr. Hiroshi SATO (Director, Center for Frontier Life Sciences, Nagasaki Univ.)
Development of microbial monitoring system	Fumio IKE (Senior Research Scientist, Experimentai Animal Div.)	Dr. Toshio ITO (The Central Institute for Experimental Animals)
Studies on improvement of microbiological quality of experimental animals	Fumio IKE (Senior Research Scientist, Experimentai Animal Div.)	Dr. Toshiaki KOKUBO (National Institute of Radiological Sciences)
Studies on zoonotic mycosis in mice	Fumio IKE (Senior Research Scientist, Experimentai Animal Div.)	Dr. Ayako SANO (Assistant Prof., Research Center for pathogenic fungi and microbial toxicoses, Chiba Univ.)
Establishment of immortalized human mesenchymal stem cell lines	Yukio NAKAMURA (Head, Cell Engineering Div.)	Dr. Akihiro UMEZAWA (Department of Reproductive Biology, National Institute for Child Health and Development)
Development of technology for establishment and preservation of mouse ES cells	Yukio NAKAMURA (Head, Cell Engineering Div.)	Dr. Isamu ISHIWATA (Director, Ishiwata Obstetrics and Gynecology Hospital)
Development of capsid mutant adenoviruses and its banking	Kazunari K. YOKOYAHA (Head, Gene Engineering Div.)	Dr. Hirofumi HAMADA (Prof., Dept. Molecular Medicine, Sapporo Medical Univ.)
Development of gene expression systeme and control of quality of resources	Kazunari K. YOKOYAHA (Head, Gene Engineering Div.)	Dr. Naoto YAMAGUCHI (Prof., Department of Molecular Cell Biology, Graduate School of Pharmaceutical Sciences, Chiba Univ.)
Development of lentivirus vectors for the analysis of gene function	Hiroyuki MIYOSH (Subteam Leader, Subteam for Manipulation of Cell Fate)	Genome Network Project

## 2. Joint Research of Universities and Research Laboratories

Theme	Representative	Collaborate with;
Development of genomic resources from Brassica Crops	Masatomo KOBAYASHI (Head, Experimental Plant Div.)	Dr. Yoshihiro NARUSAKA (Research Institute for Biological Sciences OKAYAMA)
Metabolome analysis of Arabidopsis mutant lines	Masatomo KOBAYASHI (Head, Experimental Plant Div.)	Dr. Kazuki Saito (Prof., Chiba Univ.)
Development of QTL analysis and gene mapping techniques using Arabidopsis natural accessions	Masatomo KOBAYASHI (Head, Experimental Plant Div.)	Dr. Teruaki TAJI (Assistant, Tokyo Agricultural Univ.)
Characterization of transgenic plants that express Arabidopsis circadian rhythms and stress related genes by transcriptome analysis	Masatomo KOBAYASHI (Head, Experimental Plant Div.)	Dr. Tomohiro KIYOSUE (Assistant Prof., Kagawa Univ.)
Analyses of interaction between Arabidopsis and parasitic <i>Olpidium</i> species by transcriptome analyses -Collection of additional information for Arabidopsis cDNA resources-	Masatomo KOBAYASHI (Head, Experimental Plant Div.)	Dr. Shin-ya TSUDA (National Agricultural Research Center)
Analyses of odors regulated tritrophic interactions between Brassica plants - herbivores-predators.	Masatomo KOBAYASHI (Head, Experimental Plant Div.)	Dr. Soichi KUGIMIYA (National Institute for Agro-Environmental Sciences) Dr. Takeshi SHIMODA Dr. Kei KOUZU (National Agricultural Research Center) Dr. Junji TAKABAYASHI (Prof., Kyoto Univ.) Dr. Genichirou ARIMURA (Assistant Prof., Kyoto Univ.)
Analyses of interaction between Arabidopsis and western flower thrips	Masatomo KOBAYASHI (Head, Experimental Plant Div.)	Dr. Shin-ya TSUDA Dr. Takeshi SHIMODA (National Agricultural Research Center)
Characterization of acid-sensitive Arabidopsis mutant	Satoshi IUCHI (Senior Research Scientist, Experimental Plant Div.)	Dr. Hiroyuki KOYAMA (Assistant Prof., Gifu Univ.)
Development of technology relating to primate ES cells and its banking	Yukio NAKAMURA (Head, Cell Engineering Div.)	Dr. Norio NAKATSUJI (Head, Department of Development and Differentiation, Institute for Frontier Medical Sciences, Kyoto Univ.)
Molecular profiling of skin microbiota in human	Yoshimi BENNO (Head, Microbe Div.)	Dr. Itaru DEKIO (Shimane Univ.)
An intensive research on the diversity of the microfungus flora in a small restricted region	Gen OKADA (Senior Research Scientist, Microbe Div.)	Dr. Seiji TOKUMASU (Prof., Univ. of Tsukuba)
Insight into the geographic distribution and genetic diversity among a hyperthermophilic archaeal genus <i>Vulcanisaeta</i> and related strains.	Takashi ITO (Senior Research Scientist, Microbe Div.)	Dr. Tomonori TAKASHINA (Lecturer, Toyo Univ.)
Systematic study on an iron-reducing, thermoacidophilic bacterium.	Takashi ITO (Senior Research Scientist, Microbe Div.)	Dr. Tomonori TAKASHINA (Lecturer, Toyo Univ.)
Distribution and taxonomic implication of polyamines in bacteria and archaea.	Takashi ITO (Senior Research Scientist, Microbe Div.)	Dr. Koei HAMANA (Prof., Gunma Univ.)

Theme	Representative	Collaborate with;
Phylogenetic analysis of extremely halophilic archaea on the basis of <i>rpoB</i> ' gene sequences.	Takashi ITO (Senior Research Scientist, Microbe Div.)	Dr. Ron USAMI (Prof., Toyo Univ.) Dr. Masahiro KAMEKURA (Researcher, Halophiles Research Institute)
Species diversity of microorganisms of the subtropical zone and the subarctic zone – toward construction of an inventory in Japan	Masako TAKASHIMA (Senior Research Scientist, Microbe Div.)	Dr. Tatsuji SEKI (Director, Bangkok Center for Education and Research, Osaka Univ.)
Molecular analysis of bacteria in asymptomatic and symptomatic endodontic infections	Mitsuo SAKAMOTO (Contract Researcher, Microbe Div.)	Dr. Jose F. SIQUEIRA Jr. (Prof., Estacio de Sa Univ.) (Brazil)
Bacterial reduction and persistence after endodontic treatment procedures	Mitsuo SAKAMOTO (Contract Researcher, Microbe Div.)	Dr. Jose F. SIQUEIRA JR (Prof., Estacio de Sa Univ.) (Brazil)
Taxonomic studies of <i>Prevotella</i> species	Mitsuo SAKAMOTO (Contract Researcher, Microbe Div.)	Dr. Takayuki EZAKI (Prof., Gifu Univ.) Dr. Kiyofumi OHKUSU (Associate Prof., Gifu Univ.)
Genomic analysis of MHC class I and MIC gene family region	Kaoru FUKAMI-KOBAYASHI (Head, Bioresource Information Div.)	Dr. Yoshio TATENO (National Institute of Genetics)
Compositional evolution within/between mouse, rat, chimpanzee and human genomes	Satoshi OOTA (Senior Research Scientist, Bioresource Information Div.)	Dr. Naruya SAITOU (Prof., National Institute of Genetics)
Analysis of mutants that show maxillofacial abnormalities.	Toshihiko SHIROISHI (Laboratory Head, Shiroishi Research Collaborative Group) Hiroshi MASUYA (Senior Research Scientist, Shiroishi Research Collaborative Group)	Dr. Takahide MAEDA (Prof., Department of Pediatric Dentistry, School of Dentistry at Matsudo, Nihon Univ.) Dr. Kunihiro SHIMIZU (Lecturer, Department of Pediatric Dentistry, School of Dentistry at Matsudo, Nihon Univ.)
Production of disease model mouse that show pigmentation abnormalities and its functional analysis of its causative genes.	Toshihiko SHIROISHI (Laboratory Head, Shiroishi Research Collaborative Group) Hiroshi MASUYA (Senior Research Scientist, Shiroishi Research Collaborative Group)	Dr. Hiroaki YAMAMOTO (Assistant Prof., Biological Institute, Graduate School of Science, Tohoku Univ.)
Analysis of ENU induced mutants affecting Epigenetic.	Shigeharu WAKANA (Team Leader, Shiroishi Research Collaborative Group) Tomohiro SUZUKI, (Research Scientist, Shiroishi Research Collaborative Group)	Dr. Hiroyuki SASAKI (Prof., Div. of Human Genetics, Department of Integrated Genetics, National Institute of Genetics)
Analysis of mutant mice that show morphological abnormalities.	Shigeharu WAKANA (Team Leader, Shiroishi Research Collaborative Group) Hiroshi MASUYA (Senior Research Scientist, Shiroishi Research Collaborative Group)	Dr. Toshihiko SHIROISHI (Prof., Mammalian genetics Laboratory, National Institute of Genetics)

Theme	Representative	Collaborate with;
Establishment of the mouse model for retina denaturation and the function analysis of a cause gene.	Shigeharu WAKANA (Team Leader, Shiroishi Research Collaborative Group) Hiroshi MASUYA (Senior Research Scientist, Shiroishi Research Collaborative Group) Hideo YOKOTA (Team Leader, Bio-research Infrastructure Construction Tea, RIKEN CIPS)	Dr. Kouji NISHIDA (Prof., Department of Ophthalmology and Visual Science, Tohoku Univ. School of Medicine) Dr. Hajime SATO (Lecturer, Department of Ophthalmology and Visual Science, Tohoku Univ. School of Medicine)
Analysis of mutants affecting for human muscular disorders models.	Shigeharu WAKANA (Team Leader, Shiroishi Research Collaborative Group) Hideki KANEDA (Research Scientist, Shiroishi Research Collaborative Group)	Dr. Ichizo NISHINO Dr. Satoru NOGUCHI Dr. Yukiko HAYASHI (Department of Neuromuscular Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry)
Analyses of mouse mutants exhibit serious motor ataxia.	Shigeharu WAKANA (Team Leader, Shiroishi Research Collaborative Group) Hiroshi MASUYA (Senior Research Scientist, Shiroishi Research Collaborative Group)	Dr. Hirokazu HIRAI (Prof., Advance Science Research Center, Kanazawa Univ.) Dr. Takashi TORASHIMA (Assistant Prof., Advance Science Research Center, Kanazawa Univ.) Dr. Hirokazu HIRAI (Prof., Division of Neuroscience, Graduate School of Medicine, Gunma Univ. )
Physiological analysis of mutant-type glucokinase in mice.	Tetsuo NODA (Team Leader, Shiroishi Research Collaborative Group) Maki INOUE (Research Scientist, Shiroishi Research Collaborative Group)	Dr. Yukiyasu TOYODA (Prof., Department of Pathobiochemistry, Faculty of Pharmacy, Meijo Univ.) Dr. Ichitomo MIWA (Assistant Prof., Department of Pathobiochemistry, Faculty of Pharmacy, Meijo Univ.)
Exploration of osteoporosis mouse models.	Tetsuo NODA (Team Leader, Shiroishi Research Collaborative Group) Hideaki TOKI (Senior Technical Scientist, Shiroishi Research Collaborative Group)	Dr. Masako ITO (Assistant Prof., Hospital of Medicine and Dentistry, Nagasaki Univ.)
Exploration of osteoporosis mouse models.	Tetsuo NODA (Team Leader, Shiroishi Research Collaborative Group) Hideaki TOKI (Senior Technical Scientist, Shiroishi Research Collaborative Group)	Dr. Kyoji IKEDA Dr. Kumi TSUTSUMI (Department of Bone and Joint Disease, National Institute for Longevity Sciences)
Analysis of mutant mice that show phenotypes of hypophosphatemia rickets.	Tetsuo NODA (Team Leader, Shiroishi Research Collaborative Group) Hiromi MOTEGI (Research Scientist, Shiroishi Research Collaborative Group)	Dr. Seiji FUKUMOTO (Lecturer, Department of Nephrology & Endocrinology, The Univ. of Tokyo Hospital )

Theme	Representative	Collaborate with;
Screening for mouse intramuscular adipocyte accumulation.	Tetsuo NODA (Team Leader, Shiroishi Research Collaborative Group) Hideaki TOKI (Senior Technical Scientist, Shiroishi Research Collaborative Group)	Dr. Takahisa YAMADA (Assistant Prof., The Div. of Applied Biosciences, Faculty / Graduate School of Agriculture, Kyoto Univ.)
Analysis of deafness mouse mutants with various degrees of impairment affected by inner ear hair cell functional disorders.	Tetsuo NODA (Team Leader, Shiroishi Research Collaborative Group) Osamu MINOWA (Senior Research Scientist, Shiroishi Research Collaborative Group)	Dr. Katsuhisa IKEDA (Prof., Department of Otorhinolaryngology, School of Medicine, Juntendo Univ.)
Analysis of ENU-induced mouse mutants showing cardiovascular functional abnormalities.	Tetsuo NODA (Team Leader, Shiroishi Research Collaborative Group) Osamu MINOWA (Senior Research Scientist, Shiroishi Research Collaborative Group)	Dr. Issei KOMURO (Prof., Department of Cardiovascular Science and Medicine, Graduate School of Medicine, Chiba Univ.) Dr. Hiroshi AKAZAWA (Assistant Prof., Department of Cardiovascular Science and Medicine, Graduate School of Medicine, Chiba Univ.)
Function analysis of mental disease model mouse in ENU mutagenesis.	Shigeharu WAKANA (Team Leader, Shiroishi Research Collaborative Group) Tamio FURUSE (Research Scientist, Shiroishi Research Collaborative Group)	Dr. Shigeki YUASA (Director, Department of Ultrastructural Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry) Dr. Kotaro HATTORI (Section Chief, Department of Ultrastructural Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry) Dr. Motoko MAEKAWA (Department of Ultrastructural Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry)
The functional analysis of genomic imprinting in ENU mutant mice.	Shigeharu Wakana, TL Tomohiro Suzuki, Research Scientist Shiroishi Research Collaborative Group	Dr. Fumitoshi ISHINO (Prof., Medical Research Institute, Tokyo Medical and Dental Univ.)
Analysis of alopecia mutants in mouse	Shigeharu WAKANA (Team Leader, Shiroishi Research Collaborative Group) Hiroshi MASUYA (Senior Research Scientist, Shiroishi Research Collaborative Group) Tamio FURUSE (Research Scientist, Shiroishi Research Collaborative Group)	Dr. Toshihiko SHIROISHI (Prof., Mammalian genetics Laboratory, National Institute of Genetics) Dr. Masaru TAMURA (Assistant Prof., Mammalian genetics Laboratory, National Institute of Genetics)

Theme	Representative	Collaborate with;
Analysis of mouse mutants affected skin morphology	Shigeharu WAKANA (Team Leader, Shiroishi Research Collaborative Group) Hiroshi MASUYA (Senior Research Scientist, Shiroishi Research Collaborative Group) Ikuo MIURA (Technical Scientist, Shiroishi Research Collaborative Group)	Dr. Toshihiko SHIROISHI (Prof., Mammalian genetics Laboratory, National Institute of Genetics) Dr. Masaru TAMURA (Assistant Prof., Mammalian genetics Laboratory, National Institute of Genetics)
Research on Id4 and Tysnd1 which control the cross talk of lipid metabolism and differentiation of osteoblast.	Tetsuo NODA (Team Leader, Shiroishi Research Collaborative Group) Hiromi MOTEGI (Research Scientist, Shiroishi Research Collaborative Group)	Dr. Yasushi OKAZAKI (Prof., Div. of Functional Genomics & Systems Medicine, Research Center for Genomic Medicine, Saitama Medical Univ.) Dr. Ken YAGI (Visiting Lecturer, Div. of Functional Genomics & Systems Medicine, Research Center for Genomic Medicine, Saitama Medical Univ.)
Establishment of the mutant mice for muscular disorder models.	Shigeharu WAKANA (Team Leader, Technology and Development Team for Mouse Phenotype Analysis) Hideki KANEDA (Research & Development Scientist, Technology and Development Team for Mouse Phenotype Analysis)	Dr. Ichizo NISHINO (Director, Department of Neuromuscular Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry) Dr. Satoru NOGUCHI (Section Chief, Department of Neuromuscular Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry) Dr. Yukiko HAYASHI (Section Chief, Department of Neuromuscular Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry)
Analysis of dysmorphological mutants in mouse.	Shigeharu WAKANA (Team Leader, Technology and Development Team for Mouse Phenotype Analysis) Tomohiro SUZUKI (Research & Development Scientist, Technology and Development Team for Mouse Phenotype Analysis) Ikuo MIURA (Technical Scientist, Technology and Development Team for Mouse Phenotype Analysis) Hiroshi MASUYA (Unit Leader, Technology and Development Unit for Knowledge Base of Mouse Phenotype)	Dr. Toshihiko SHIROISHI (Prof., Mammalian genetics Laboratory, National Institute of Genetics) Dr. Masaru TAMURA (Assistant Prof., Mammalian genetics Laboratory, National Institute of Genetics)

Theme	Representative	Collaborate with;
Collaborative study of histological and the physiologic analysis of a psychiatric disease / the developmental disorder model mice.	Shigeharu WAKANA (Team Leader, Technology and Development Team for Mouse Phenotype Analysis) Tamio FURUSE (Research & Development Scientist, Technology and Development Team for Mouse Phenotype Analysis)	Dr. Shigeki YUASA (Director, National Institute of Neuroscience, National Center of Neurology and Psychiatry) Dr. Masayuki SEKIGUCHI Dr. Shigeo UCHINO (Section Chief, National Institute of Neuroscience, National Center of Neurology and Psychiatry)
Epigenetic analysis of abnormality of gene regulation by small RNA molecule in the ENU induced mice.	Shigeharu WAKANA (Team Leader, Technology and Development Team for Mouse Phenotype Analysis) Tomohiro SUZUKI (Research & Development Scientist Technology and Development Team for Mouse Phenotype Analysis)	Dr. Hiroyuki SASAKI (Prof., Div. of Human Genetics, Department of Integrated Genetics, National Institute of Genetics)
Comprehensive analysis of phenotypes and gene expressions for epigenetic mechanism in mice.	Shigeharu WAKANA (Team Leader, Technology and Development Team for Mouse Phenotype Analysis) Tomohiro SUZUKI (Research & Development Scientist Technology and Development Team for Mouse Phenotype Analysis) Hideki KANEDA (Research & Development Scientist, Technology and Development Team for Mouse Phenotype Analysis) Atsuo OGURA (Head, Bioresource Engineering Div.)	Dr. Fumitoshi ISHINO (Prof., Medical Research Institute, Tokyo Medical and Dental Univ.) Dr. Takashi KOHDA (Associate Prof., Medical Research Institute, Tokyo Medical and Dental Univ.)
Comprehensive phenotype analysis in the Type 2 diabetes mellitus model mouse NSY line.	Shigeharu WAKANA (Team Leader, Technology and Development Team for Mouse Phenotype Analysis) Tomohiro SUZUKI (Research & Development Scientist, Technology and Development Team for Mouse Phenotype Analysis)	Dr. Tomomi FUJISAWA (Lecturer, Graduate School of Medicine, Osaka Univ.)
Analyses of mouse mutants exhibiting renal dysfunction.	Tetsuo NODA (Team Leader, Team for Advanced Development and Evaluation of Human Disease Models) Hideaki TOKI (Technical Scientist, Team for Advanced Development and Evaluation of Human Disease Models)	Dr. Sadayoshi ITO (Prof., Div. of Nephrology, Endocrinology and Vascular Medicine, School of Medicine, Tohoku Univ.) Dr. Hiroshi SATO (Associate Prof., Div. of Nephrology, Endocrinology and Vascular Medicine, School of Medicine, Tohoku Univ.)

Theme	Representative	Collaborate with;
Analyses of ENU-induced mouse mutants with renal dysfunction.	Tetsuo NODA (Team Leader, Team for Advanced Development and Evaluation of Human Disease Models) Maki INOUE (Research & Development Scientist, Technical Scientist, Team for Advanced Development and Evaluation of Human Disease Models)	Dr. Takashi FUJITA (Prof., Laboratory of Molecular Genetics, Institute for Virus Research Kyoto Univ.)
Functional study of the central nervous system with mice carrying mutations in the genes related to domamin neurotransmission.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Kazuto KOBAYASHI (Prof., Fukushima Medical Univ.)
The functional study of genes for pharmacometabolism at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Robert P. ERICKSON (Prof., Univ. of Arizona)
The functional study of genes for psychiatric diseases at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. John RODER (Prof., Mount Sinai Hospital Research Institute)
The functional study of genes for neurodegeneration at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Kevin TALBOT (Oxford Univ.)
The functional study of genes for psychiatric diseases at the organismal level	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Noboru HIROI (Albert Einstein College of Medicine)
The functional study of genes for nervous system at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. David R. HAMPSON (Prof., The Univ. of Toronto)
The functional study of genes for tumorigenesis at the organismal level	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Dae-Yeul YU (Korea Research Institute of Bioscience and Biotechnology)
The functional study of genes for tumorigenesis at the organismal level	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Sanford MARKOWITZ (Prof., Case Western Reserve Univ.)
The functional study of genes for tumorigenesis and micro RNA at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Joseph H. NADEAU (Prof., Case Western Reserve Univ.)
The functional study of genes for transcription factors at the organismal level	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Marc FELLOUS (Univ. of Paris)
The functional study of genes for skin at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Ian JACKSON (Medical Research Council)



Theme	Representative	Collaborate with;
The functional study of genes for sensory systems at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Catherine DULAC (Prof., Harvard Univ.)
The functional study of genes for transcription at the organismal level	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Angabin MATIN (Assistant Prof., The Univ. of Texas)
The functional study of genes for neurodegenerative diseases at the organismal level	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Elizabeth FISHER (Institute of Neurology)
The functional study of genes for DNA replication at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Takehiko NOHMI (National Institute of Health Science)
The functional study of genes for mouse development at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Toshihiko SHIROISHI (Prof., National Institute of Genetics)
The functional study of genes for senescence at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Minoru Sugawara (Tohoku Univ.)
The functional study of genes for expression at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Tomoko SAGAI (National Institute of Genetics)
The functional study of genes for mouse development at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Gen YAMADA (Prof., Kumamoto Univ.)
The functional study of genes for transcription at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Naoto UENO (Prof., National Institute for Basic Biology)
The functional study of genes for behavior at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Tsuyoshi KOIDE (Associate Prof., National Institute of Genetics)
The functional study of genes for apoptosis at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Mikihiro NAITO (Associate Prof., The Univ. of Tokyo)
The functional study of genes for tumor suppressor at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Ryo KOMINAMI (Prof., Niigata Univ.)
The functional study of genes for mouse development at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Hiroshi HIAI (Prof., Kyoto Univ.)

Theme	Representative	Collaborate with;
The functional study of genes for nervous system at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Atsu AIBA (Prof., Kobe Univ.)
The functional study of genes for tumorigenesis at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Ryoji YAO (Japanese Foundation for Cancer Reserch)
The functional study of genes for psychiatric diseases at the organismal level	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Toru TAKUMI (Prof., Osaka Bioscience Institute)
The functional study of genes for epigenetics at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Hiroyuki SASAKI (Prof., National Institute of Genetics)
The functional study of genes for recombination at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Hiroshi IWASAKI (Prof., Yokohama City Univ.)
The functional study of genes for DNA replication at the organismal level	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Fumio HANAOKA (Prof., Osaka Univ.)
The functional study of genes for diabbetes at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Hiroshi IKEGAMI (Associate prof., Osaka Univ.)
The functional study of genes for adhesion at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Takeshi YAGI (Prof., Osaka Univ.)
The functional study of tumor suppressor genes at the organismal level	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Takuro NAKAMURA (Japanese Foundation for Cancer Reserch)
The functional study of genes for membrane proteins at the organismal level..	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Takaaki ABE (Prof., Tohoku Univ.)
The functional study of genes for mouse development at the organismal level	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Hiromiti YONEKAWA (Tokyo Metropolitan Institute of Medical Science)
The functional study of genes for aging at the organismal level	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Naoaki ISHII (Prof., Tokai Univ.)
The functional study of genes for circadian rythm at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Shinichi INOUE (Prof., Yamaguchi Univ.)

Theme	Representative	Collaborate with;
The functional study of genes for behavior at the organismal level	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Tsuyoshi MIYAKAWA (Prof., Kyoto Univ.)
The functional study of genes for the sensory system at the organismal level	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Yoshiaki KIKKAWA (Tokyo Univ. of Agriculture)
The functional study of genes for immune system at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Minoru KIMURA (Prof., Tokai Univ.)
The functional study of genes for reproduction at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Tetsuo KUNIEDA (Prof., Okayama Univ.)
The functional study of genes for DNA repair at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Teruhisa TSUZUKI (Prof., Kyusyu Univ.)
The functional study of genes in liver at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Norman D. ROSENBLUM (Prof., Hospital for Sick Children)
The functional study of genes for RNA at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Andrew J. GRIERSON (Prof., The Univ. of Sheffield)
The functional study of genes for development at the organismal level	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Mark FEATHERSTONE (Nanyang Technological Univ.)
The functional study of genes for behavior at the organismal level	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Steven J. CLAPCOTE (The Univ. of Edinburgh)
The functional study of genes for sensory systems at the organismal level	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Hideshi KAWAKAMI (Prof., Hiroshima Univ.)
The functional study of genes for brain at the organismal level	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Koichi TANAKA (Prof., Tokyo Medical and Dental Univ.)
The functional study of genes for genetic diseases at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Koh-ichiro YOSHIURA (Prof., Nagasaki Univ.) Dr. Shiro Ikegawa (Team Leader, RIKEN SRC)
The functional study of genes for tumorigenesis at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Tokuhiro CHANO (Associate Prof., Shiga Univ.)

Theme	Representative	Collaborate with;
The functional study of genes for metabolism at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Yasushi OKAZAKI (Dorector, Saitama Medical Univ.)
Development and analysis of human disease models related to DNA recombination	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Dr. Takehiko SHIBATA (Associate Prof., Yokohama City Univ.) Dr. Hitoshi KURUMIZAWA (Associate Prof., Waseda Univ.)
Studies of human psychiatric diseases with model mice.	Yoichi GONDO (Team Leader, Mutagenesis and Genomics Team)	Dr. Sawa AKIRA (Associate Prof., Johns Hopkins Univ.)
The functional study of genes for tumorigenesis at the organismal level	Yoichi GONDO (Team Leader, Mutagenesis and Genomics Team)	Dr. Jean-Jacques PANTHIER (Institut Pasteur)
The functional study of genes for skin at the organismal level	Yoichi GONDO (Team Leader, Mutagenesis and Genomics Team)	Dr. Fernando BENAVIDES (The Univ. of Texas)
The functional study of genes for signal transduction at the organismal level.	Yoichi GONDO (Team Leader, Mutagenesis and Genomics Team)	Dr. Veronique BLANQUET (Prof., The Univ. of Limoges)
The functional study of genes for behavior at the organismal level	Yoichi GONDO (Team Leader, Mutagenesis and Genomics Team)	Dr. Shizufumi Ebihara (Prof., Nagoya Univ.)
The functional study of genes for motion at the organismal level.	Yoichi GONDO (Team Leader, Mutagenesis and Genomics Team)	Dr. Masashi Kawaichi (Prof., Nara Institute of Science and technology)
Molecular mechanism of environmental stress response and tolerance in plants	Kazuo SHINOZAKI (Laboratory Head, Shinozaki Research Collaborative Group)	Dr. Kazuko YAMAGUCHI-SHINOZAKI (Project Leader, Japan International Research Center for Agricultural Sciences [JIRCAS])
Collection of full-length cDNA from poplar	Kazuo SHINOZAKI (Laboratory Head, Shinozaki Research Collaborative Group)	Dr. Tokihiko NANJO (Researcher, Forestry and Forest Products Reseach Institute)
Functional genes involved in drought stress tolerance and their application for molecular breeding of rice	Kazuo SHINOZAKI (Laboratory Head, Shinozaki Research Collaborative Group)	Dr. Philippe HERVE (Leader of MAFF Project, International Rice Research Institute [IRRI])
Functional genes involved in drought stress tolerance and their application for molecular breeding of rice	Kazuo SHINOZAKI (Laboratory Head, Shinozaki Research Collaborative Group)	Dr. Jonathan CROUCH (Leader of MAFF Profect, International Maize and Wheat Improvement Center [CIMMYT])
Functional genes involved in drought stress tolerance and their application for molecular breeding of rice	Kazuo SHINOZAKI (Laboratory Head, Shinozaki Research Collaborative Group)	Dr. Manabu ISHITANI (Leader of MAFF Project, International Center for Tropical Agriculture [CIAT])

### 3. Joint Research with Private Sector

Theme	Representative	Collaborate with;
Technology development for the promotion of Bioresource programs (Animal facility and transportation of mouse resources)	Atsushi YOSHIKI (Head, Experimental Animal Div.)	Hitachi Plant Technologies, Ltd. (Director, Minoru TAKAHASHI)

Theme	Representative	Collaborate with;
Research and development of highly-sensitive and micro-scale method for serological test of infectious diseases	Fumio IKE (Senior Research Scientist, Experimental Animal Div.)	Fuence Co., Ltd. (Hiroshi AOKI / Teruyuki NAGAMINE)
Study of therapeutic use of antisense ODN	Kazunari K. YOKOYAMA (Head, Gene Engineering Div.)	Mitsubishi Food Inc. Kawaken Fine Chemical Co. (Tsuyoshi AOKI)
Culture-independent analysis of human gut microbiota by terminal-RFLP	Yoshimi BENNO (Head, Microbe Div.)	Florainformatics LLP
Collaborative study of the pathogenesis in AD/HD: Attention Deficit / Hyperactivity Disorder model mouse.	Shigeharu WAKANA (Team Leader, Shiroishi Research Collaborative Group) Tamio FURUSE (Research Scientist, Shiroishi Research Collaborative Group)	Pharmaceutical Research Center, Kyowa Hakko Kogyo Co., LTD. (Director, Naoki SENO Senior Researcher, Tomoyuki KANDA)
Gene Expression Analysis of mouse neoplastic lesions.	Tetsuo NODA (Team Leader, Team for Advanced Development and Evaluation of Human Disease Models) Hideaki TOKI (Technical Scientist, Team for Advanced Development and Evaluation of Human Disease Models)	Genome Center, Japanese Foundation for Cancer Research (Dr. Yutaka HOSHIKAWA)
Trial to Mouse Proteome Application with Two Dimensional Fluorescence Differential Gel Electrophoresis (2D DIGE)	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	GE Healthcare
The functional study of candidate genes for human diseases at the organismal level.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Genodyve Farma
Functional study of the central nervous system with mice carrying mutations in the genes related to dopamine neurotransmission.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Fukushima Medical University (Dr. Kazuto KOBAYASHI)
Feasibility study of enrichment of target exon sequences in the mouse genome and next-generation re-sequencing.	Yoichi GONDO (Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team)	Nimblegen (Roche)
Development of high-throughput mutation discovery in the mouse genome with high-resolution melting (HRM).	Yoichi GONDO (Team Leader, Mutagenesis and Genomics Team)	Fludigm
Characterization of dehydration response pathways in Arabidopsis accessions by transcriptomics and metabolomic	Kazuo SHINOZAKI (Laboratory Head, Shinozaki Research Collaborative Group)	Kazusa DNA Research Institute (Dr. Daisuke SHIBATA)
Evaluation of stress-tolerant genes in transgenic maize	Kazuo SHINOZAKI (Laboratory Head, Shinozaki Research Collaborative Group)	Japan Tobacco INC (JT) (Chief Scientist, Jun UEKI)

#### 4. Commissioned Research

Theme	Representative (BRC)	Commissioned by;
Elucidation of genetic factors affecting toxicological test results in mammals and verification of novel endocrine disrupting mechanisms	Atsushi YOSHIKI (Head, Experimental Animal Div.)	The Institute of Environmental Toxicology

Theme	Representative (BRC)	Commissioned by;
Isolation and functional characterization of rice genes related with viviparous germination	Masatomo Kobayashi (Head, Experimental Plant Div.)	National Institute of Agrobiological Science (NIAS)
Development of low-environmental load disease control method using Brassica crop genome resources	Hiroshi ABE (Senior Research Scientist, Experimental Plant Div.)	Bio-oriented Technology Research Advancement Institution
Study of cell growth and differentiation by histone chaperone JDP2	Kazunari K. Yokoyama (Head, Gene Engineering Div.)	The Naito Foundation
Culture-independent analysis of human gut microbiota by terminal-RFLP	Yoshimi BENNO (Head, Microbe Div.)	Infocom Inc.
Molecular analysis of human gut microbiota	Yoshimi BENNO (Head, Microbe Div.)	Morinaga Milk Industry Co.,LTD
Culture - independent analysis of human gut microbiota	Yoshimi BENNO (Head, Microbe Div.)	Fujicco Co.,Ltd
Modified terminal-RFLP method for human fecal microbiota	Yoshimi BENNO (Head, Microbe Div.)	Techno Suruga Laboratory Co.,Ltd
Acquisition of knowledge of intestinal microbiota	Yoshimi BENNO (Head, Microbe Div.)	Korea Yakult Co., Ltd
Development of analyzing system for microbial flora on board space station and astronauts	Yoshimi BENNO (Head, Microbe Div.)	Japan Space Forum
Technical development of generation of mice cloned from disease-model cells	Atsuo OGURA (Head, Bioresource Engineering Div.)	Japan Science and Technology Agency (JST)
Evaluation of effects of chemical compound using model animals	Kuniya ABE (Team Leader, Tchechnology and Development Team for Mammalian Cellular Dynamics)	Japan Biological Informatics Consortium
Functional analysis of antisense RNA	Hidenori KIYOSAWA (Research & Development Scientist, Tchechnology and Development Team for Mammalian Cellular Dynamics)	Japan Biological Informatics Consortium
Method development of ncRNA analysis using genome tiling array	Hidenori KIYOSAWA (Research & Development Scientist, Tchechnology and Development Team for Mammalian Cellular Dynamics)	Japan Science and Technology Agency
Roles of transcription factor in plants	Kazuo SHINOZAKI (Laboratory Head, Shinozaki Research Collaborative Group)	Japan Science and Technology Agency (JST)
Engineering of an abiotic tolerant rice using transcription factor genes	Kazuo SHINOZAKI (Laboratory Head, Shinozaki Research Collaborative Group)	National Institute Agrobiological Sciences
Promotion of Research Targeting a Stable Supply of Global Food	Kazuo SHINOZAKI (Laboratory Head, Shinozaki Research Collaborative Group)	Japan International Research Center for Agricultural Sciences (JIRCAS)
Engineering of molecular breeding for stress tolerant plants by using regulatory genes	Kazuo SHINOZAKI (Laboratory Head, Shinozaki Research Collaborative Group)	Japan International Research Center for Agricultural Sciences (JIRCAS)

### 5. National BioResource Project

Theme	Representative	Contributing Researcher
Establishment of the system for collection, preservation and distribution of experimental rat	Dr. Tadao SERIKAWA (Prof., Kyoto Univ.)	Yuichi OBATA (Director, BRC)
Collection, preservation and distribution of the rat resources (Backup storage of rat frozen embryos)	Dr. Tadao Serikawa (Prof., Kyoto Univ.)	Atsushi YOSHIKI (Head, Experimental Animal Div.)

Theme	Representative	Contributing Researcher
Deposit of immortalized cell lines derived from Japanese	Dr. Masanobu SATAKE (Prof., Tohoku Univ.)	Yukio NAKAMURA (Head, Cell Engineering Div.)
Deposit of human mesenchymal stem cells	Dr. Yukio KATO (Prof., Hiroshima Univ.)	Yukio NAKAMURA (Head, Cell Engineering Div.)
Deposit of immortalized cell lines derived from Japanese	Dr. Takashi IMAI (Project Leader, National Institute of Radiological Sciences)	Yukio NAKAMURA (Head, Cell Engineering Div.)
Pathogenic microbes(Bacterium, Actinomycetes, Fungi)	Dr. Kazuko NISHIMURA (Prof., Medical Mycology Research Center, Chiba Univ.)	Yoshimi BENNO (Head, Microbe Div.)
General microbes	Dr. Makoto WATANABE (Prof., Univ. of Tsukuba)	Yoshimi BENNO (Head, Microbe Div.)

### NBRP fundamental technology upgrading program (2007-8)

#### “Development of transportation system for the mouse and rat resources”

Theme	Representative	Contributing Researcher
Development of preservation method of genetic resource for long period	Masatomo KOBAYASHI (Head, Experimental Plant Div.)	Takehide MURATA (Senior Research Scientist, Gene Engineering Div.)
Full-length sequencing of Thellungiella halophila cDNA clones as a new resource for Arabidopsis research	Masatomo KOBAYASHI (Head, Experimental Plant Div.)	
Development of transportation systems for the mouse and rat resources	Atsushi YOSHIKI (Head, Experimental Animal Div.)	Atsuo OGURA (Head, Bioresource Engineering Div.) Tadao SERIKAWA (Prof., Kyoto Univ.) Naomi NAKAGATA (Prof., Kumamoto Univ.)

## 6. Grant-in-Aid for Scientific Research

### ◦Theme list of Research Fellowship for Young Scientist

Contract Fiscal Year	Researcher	Host Lab.	Supervizer	Theme
~2006 (DC2)	Hiromi MIKI (Student Trainee)	Bioresource Engineering Div.	Astuo OGURA (Head)	Genomic study on the totipotency and capacitation of male germ cell genome by nuclear transfer and microinsemination
2007 ~ (PD)	Shin KURIHARA (Visiting Researcher)	Microbe Div.	Yoshimi BENNO (Head)	Control of concentration of polyamine in the intestinal environment by modifying intestinal microbiota
2007 ~ (PD)	Jin-moon KIM (Postdoctoral Fellowships for Foreign Reserchers)	Bioresource Engineering Div.	Astuo OGURA (Head)	Choromatin modifications during differentiation and totipotency-acquisition in the germ cell genome
2008 ~ (PD)	Yuriko KOBAYASHI (Visiting Researcher)	Experimental Plant Div.	Masatomo KOBAYASHI (Head)	Characterization of Aluminum torerance of Arabidopsis using natural accessions

## ○Grant-in-Aid for Scientific Research for Promoted Research (Supported by MEXT)

Representative	Division	Theme
Shunsuke ISHII	Laboratory Head, Ishii Research Collaborative Group	Research on transcriptional mediators and their physiological role.

## ○Grant-in-Aid for Scientific Research on Priority Areas (Supported by MEXT)

Representative and / or Contributing Researcher	Organization / Division	Theme
Atsuo OGURA	Head, Bioresource Engineering Div.	Analysis of mechanisms of genomic imprinting and totipotency in the male germ cell nucleus
Atsuo OGURA	Head, Bioresource Engineering Div.	Germ cell development, reprogramming and epigenetics
Atsuo OGURA	Head, Bioresource Engineering Div.	Analysis of genomic reprogramming by nuclear transfer cloning
Kuniya ABE	Team Leader, Technology and Development Team for Mammalian Cellular Dynamics	Comprehensive analyses of gene regulatory mechanisms operated in mouse germ cell development
Hidenori KIYOSAWA	Research & Development Scientist, Technology and Development Team for Mammalian Cellular Dynamics	Analysis of Natural Antisense RNA Gene Expression.
Tsuyoshi MIYAKAWA (Representative) Yoichi GONDO	Prof., Faculty of Medicine, Kyoto Univ. Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team	Functional analysis of carcineurin and related genes by gene-driven mutagenesis.
Tetsuya OOBAYASI (Representative) Ryutaro FUKUMURA	Faculty of Medicine, Kyoto Univ. Research & Development Scientist, Functional Genomics Research Group, Population and Quantitative Genomics Team	Identification of donor cells for initialization by a new technology to assess the whole chromosomal structure.
Kazunari K. YOKOYAMA	Head, Gene Engineering Div.	Inhibition of viral infection by E1A-induced chromatin regulator
Atsuo OGURA	Head, Bioresource Engineering Div.	Analysis of the totipotent state in the germ cell genome by nuclear transfer
Atsuo OGURA Kuniya ABE	Head, Bioresource Engineering Div. Team Leader, Technology and Development Team for Mammalian Cellular Dynamics	The germ line. Its developmental cycle and epigenomic network. Studies on developmental programs of embryonic stem cells and germ cells in mice.

## ○Grant-in-Aid for Specific Research/Grant-in-Aid for Exploratory Research/Grant-in-Aid for Young Scientist

Grant	Representative and / or Contributing Researcher	Organization / Division	Theme
Grant-in-Aid for Specific Research (B)	Atsushi YOSHIKI	Head, Experimental Animal Div.	Studies on the insertional sequence length variation in the keratin gene causing hair loss disease
Grant-in-Aid for Specific Research (A)	Dr. Kenichi YAGAMI (Representative) Fumio IKE	Prof., Univ. of Tsukuba Senior Research Scientist, Experimental Animal Div.	Development of micro-scale detection methods for infectious diseases in mouse and rat using microbeads
Grant-in-Aid for Young Scientist (B)	Yasuyuki KITAURA	Research Scientist, Experimental Animal Div.	Search for T-cell differentiation factors using wild-derived inbred mice deficient of cytotoxic T-cells



Grant	Representative and / or Contributing Researcher	Organization / Division	Theme
Grant-in-Aid for Specific Research (C)	Masatomo KOBAYASHI	Head, Experimental Plant Div.	Characterization of function of gibberellin 3-oxidase N-terminal
Grant-in-Aid for Young Scientist (B)	Hiroshi ABE	Senior Research Scientist, Experimental Plant Div.	Development of plants with elevated tolerance to insect attack
Grant-in-Aid for Specific Research (C)	Satoshi IUCHI	Senior Research Scientist, Experimental Plant Div.	Isolation and characterization of genes regulated by STOPI, a key transcription factor in the acid soil tolerance
Grant-in-Aid for Specific Research (C)	Yukio NAKAMURA (Representative)	Head, Cell Engineering Div.	Application of nuclear transferred ES cells in hematopoietic stem cell transplantation therapy
Grant-in-Aid for Young Scientist (B)	Takashi HIROYAMA	Research Scientist, Cell Engineering Div.	Analysis of the function of MUSASHI gene family in differentiation of hematopoietic cells
Grant-in-Aid for Young Scientist (B)	Takashi HIROYAMA	Research Scientist, Cell Engineering Div.	Development of technology to produce enucleated red blood cells from erythroid progenitor cell lines that have been established from ES cells
Grant-in-Aid for Young Scientist (B)	Kazuhiro SUDO	Contract Researcher, Cell Engineering Div.	Development of technology to isolate mesenchymal stem cells efficiently from human placenta, amnion or umbilical cord
Grant-in-Aid for Specific Research (B) (2)	Kazunari K. YOKOYAMA	Head, Gene Engineering Div.	Chromatin dynamics and regulated cell- differentiation
Grant-in-Aid for Young Scientist (B)	Koji NAKADE	Contract Researcher, Gene Engineering Div.	The role and molecular mechanisms of an inhibitor of histone acetyltransferase, JDP2, on cell differentiation
Grant-in-Aid for Specific Research (C)	Koji NAKADE	Contract Researcher, Gene Engineering Div.	Study of the regulation of cell aging and proliferation by JDP2 and its molecular mechanism
Grant-in-Aid for Specific Research (A) (1)	Dr. Tatsuji SEKI (Representative) Yoshimi BENNO Takashi ITO Gen OKADA Takuji KUDO Motofumi SUZUKI Masako TAKASHIMA	Prof., Osaka Univ. Head., Microbe Div. Senior Res. Scientist, Microbe Div. Senior Res. Scientist, Microbe Div. Senior Res. Scientist, Microbe Div. Senior Res. Scientist, Microbe Div. Senior Res. Scientist, Microbe Div.	Evaluation of microbial strains in culture collection of Southeast Asia and investigation of correspondence for microbial diversity in each country
Grant-in-Aid for Specific Research (C)	Dr. Kenji WATANABE (Representative) Yoshimi BENNO	Associate Prof., School of Medicine, Keio Univ. Head., Microbe Div.	Effect of gut microbiota on intestinal immunity
Grant-in-Aid for Specific Research (A)	Dr. Iwao SASAKI (Representative) Yoshimi BENNO	Prof., Tohoku Univ. Head., Microbe Div.	Surgery treatment of ulcerative colitis and the anti-allergy mechanisms of diarrhea
Grant-in-Aid for Specific Research (C)	Masako TAKASHIMA	Senior Research Scientist, Microbe Div.	A molecular approach to exploring and evaluating novel criteria for fungal taxonomy
Grant-in-Aid for Specific Research (C)	Dr. Sadako NAKAMURA (Representative) Yoshimi BENNO	Lecturer, Siebold University of Nagasaki Head., Microbe Div.	Effect of intestinal microbiota on the non-digestible sugar intake and the inhibition mechanism

Grant	Representative and / or Contributing Researcher	Organization / Division	Theme
Grant-in-Aid for Exploratory Research	Satoshi OOTA	Senior Research Scientist, Bioresource Information Div.	Construction of a three-dimensional model of laboratory mice: 3D virtual laboratory mice
Grant-in-Aid for Specific Research (C)	Satoshi OOTA	Senior Research Scientist Bioresource Information Div.	Development of computer model of experimental mouse musculoskeletal system
Grant-in-Aid for Specific Research (B)	Atsuo OGURA	Head, Bioresource Engineering Div.	Establishment of nuclear transfer-ES cells in non-rodent laboratory animals
Grant-in-Aid for Young Scientist (B)	Kimiko INOUE	Research Scientist, Bioresource Engineering Div.	Analysis of the periimplantation abnormalities in cloned embryos based on phenotypes and gene expression patterns
Grant-in-Aid for Young Scientist (B)	Narumi OGONUKI	Technical Scientist, Bioresource Engineering Div.	Generation of offspring by microinsemination using conventionally frozen male germ cells
Grant-in-Aid for Specific Research (C)	Narumi OGONUKI	Technical Scientist, Bioresource Engineering Div.	High-speed congenic strategy in mice
Grant-in-Aid for Young Scientist (B)	Arata HONDA	Special Postdoctoral Researcher, Bioresource Engineering Div.	Gene targeting in rabbits
Grant-in-Aid for Young Scientists (Start-up)	Hiroshi MIKI	Special Postdoctoral Researcher, Bioresource Engineering Div.	Genomic reprogramming ability in mouse immature oocytes
Grant-in-Aid for Specific Research (B) (2)	Kuniya ABE	Team Leader, Technology and Development Team for Mammalian Cellular Dynamics	Development of mouse resources and technology for functional genome analysis using BAC library derived from Japanese wild mouse
Grant-in-Aid for Specific Research (B)	Dr. Toru Takemasa (Representative) Hidenori KIYOSAWA	Associate Prof., Univ. of Tsukuba Research & Development Scientist, Technology and Development Team for Mammalian Cellular Dynamics	Investigation of molecular mechanisms for preventing sarcopenia by exercise training
Grant-in-Aid for Young Scientist (B)	Tomoyuki YAMAGUCHI	Research & Development Scientist, Subteam for Manipulation of Cell Fate	Development of gene-trap method using lentiviral vectors
Grant-in-Aid for Specific Research (B)	Shigeharu WAKANA	Team Leader, Technology and Development Team for Mouse Phenotype Analysis	Development of database system for communization of infrastructure information of mouse phenotyping analysis.
Grant-in-Aid for Specific Research (B)	Katsuhisa IKEDA (Representative) Osamu MINOWA	Prof., Department of Otorhinolaryngology, School of Medicine, Juntendo Univ. Research & Development Scientist, Team for Advanced Development and Evaluation of Human Disease Models	The attempt of therapeutic development for hereditary deafness using genetically engineered mouse models
Grant-in-Aid for Specific Research (A)(1)	Yoichi GONDO (Representative) Kunita ABE	Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team Team Leader, Technology and Development Team for Mammalian Cellular Dynamics	Development of mouse strains with point mutations by gene-driven mutagenesis approach.

Grant	Representative and / or Contributing Researcher	Organization / Division	Theme
Grant-in-Aid for Specific Research (B)	K. Ryo TAKAHASI	Research Scientist, Functional Genomics Research Group, Population and Quantitative Genomics Team	Mechanism of evolution based on functional systems of phenome construction principle
Grant-in-Aid for Specific Research (C)(2)	Yoshiyuki SAKURABA (Representative)  Yoichi GONDO	Research Scientist, Functional Genomics Research Group, Population and Quantitative Genomics Team  Team Leader, Functional Genomics Research Group, Population and Quantitative Genomics Team	Genetic and functional studies on highly conserved noncoding genomic sequences in vertebrates.
Grant-in-Aid for Young Scientist (B)	Ryutaro FUKUMURA	Research & Development Scientist, Mutagenesis and Genomics Team	Study of the mechanism of bioclock by the analysis of point mutations affecting the genes for the light induction and circadian rhythm.
Grant-in-Aid for Young Scientist (B)	Miki FUJITA	Research Scientist, Shinozaki Research Collaborative Group	Functional analysis of RD20, a stress-responsive Ca <sup>2+</sup> -binding protein
Grant-in-Aid for Young Scientist (B)	Rie NISHIYAMA	Special Postdoctoral Researcher, Shinozaki Research Collaborative Group	Evolution of plant sex chromosomes: Isolation of sex-determination genes using dioecious and gynodioecious plants
Grant-in-Aid for Specific Research (C)	Takashi KUROMORI	Research Scientist, Shinozaki Research Collaborative Group	Feasible study of phenome using chemicals and high throughput screening system in Arabidopsis
Grant-in-Aid for Young Scientist (B)	Taishi UMEZAWA	Research Scientist, Shinozaki Research Collaborative Group	Functional analysis of potassium transporters which interact with SnRK2 protein kinases
Grant-in-Aid for Young Scientist (B)	Maki INOUE	Research Scientist, Shiroishi Research Collaborative Group	Exploration and analysis of pathological mechanism of diabetes using novel ENU-induced mutants.
Grant-in-Aid for Specific Research (C)	Hideki KANEDA	Research Scientist, Shiroishi Research Collaborative Group	Exploration of mouse models for mitochondrial disorders in ENU-mutagenized mice
Grant-in-Aid for Young Scientist (B)	Tomohiro SUZUKI	Research Scientist, Shiroishi Research Collaborative Group	Exploration of the genes related to re-establishment of genomic imprinting in spermatogenesis in mice.
Grant-in-Aid for Young Scientist (B)	Yumiko WADA	Research Scientist, Shiroishi Research Collaborative Group	Behavioral analyses of mutant mice which show hyperactivity in the open-field.
Grant-in-Aid for Specific Research (C)	Hiroshi MASUYA	Senior Research Scientist, Shiroishi Research Collaborative Group	Functional analysis of motor ataxia mutants in mouse.

### 7. The Competing Research Grant from Private Organization

Theme	Representative	Supplied Organization
Efficient production of primate cloned embryos by gene expression analysis	Kimiko INOUE (Research Scientist, Bioresource Engineering Div.)	Mochida Memorial Foundation for Medical and Pharmaceutical Research
Analysis of reprogramming of somatic and germ cell nuclei by nuclear transfer techniques	Kimiko INOUE (Research Scientist, Bioresource Engineering Div.)	The Sumitomo Foundation

## 8. President's Fund

Representative	Organization / Division	Theme
Susumu TONEGAWA Shigemi ITOHARA Yuichi OBATA	MIT RIKEN BSI RIKEN BRC	
Yukio NAKAMURA	Cell Engineering Div.	Maintenance, preservation and provision of the benchmark cells: Live cell modeling as the fundamental tool of biology
Yukio NAKAMURA	Cell Engineering Div.	Establishment of model mouse of immunological disease: Project of establishment of human immune system in mouse
Tetsuro TOYODA (Representative)  Shiro USUI Kaoru FUKAMI-KOBAYASHI	RIKEN GSC  RIKEN BSI RIKEN BRC Bioresource Information Div.	Construction of the RIKEN Hub Database integrating open databases, Neuroinformatics-related information, and Bioresource-related information. Archiving of Neuroinformatics-related information. Archiving of Bioresource-related information.
Atsuo OGURA (Representative) Kazunari K. YOKOYAMA Kuniya ABE	Bioresource Engineering Div.  Gene Engineering Div. Technology and Development Team for Mammalian Cellular Dynamics	Establishment of primate ES cells by intraspecies nuclear transfer
Hidenori KIYOSAMA (Representative)  Hidenori KIYOSAWA  Kuniya ABE  Atsuo OGURA  Motoaki SEKI	Technology and Development Team for Mammalian Cellular Dynamics  Technology and Development Team for Mammalian Cellular Dynamics Technology and Development Team for Mammalian Cellular Dynamics Bioresource Engineering Div.  Plant Mol. Biol. Lab.	Comprehensive Analysis of Functions and Structures of Endogenous Antisense RNA Identified in Mammals and Plants. Expression Analysis of Mouse Antisense RNA, and Evaluation of the Entire Project. Sequence analysis of MSM BAC clones and detection of SNPs. Establishment of ES cells from hybrids between wild-derived and laboratory strains of mice. Analysis of Arabidopsis RNAs without poly (A).
Hiroyuki MIYOSHI	Subteam for Manipulation of Cell Fate	“Project for the reproduction of human immune system” ‘Development of lentiviral vectors for human stem cells’
Shigeharu WAKANA	Technology and Development Team for Mouse Phenotype Analysis Team Leader	Mouse phenotype assessment system for the development of drug discovery infrastructure.
Representative	Organization / Division	Theme
Takashi HIRAYAMA (Representative) Tetsuo NODA  Jun KIKUCHI Yoichi GONDO	DRI Plant Molecular Biology Laboratory Mouse Mutation Resource Analysis Team RIKEN PSC Functional Genomics Research Group, Population and Quantitative Genomics Team Team Leader	Development of the novel comprehensive metabolite analysis method: Establishment of the multi-dimensional NMR metabolomics method and analyses of the metabolites of animals and plants.

**9. Neural Circuit Genetics (NCG) Project**

Researcher	Organization / Division	Theme
Susumu TONEGAWA (Representative) Yuichi OBATA Kuniya ABE Atsushi YOSHIKI	Senior Advisor, RIKEN BSI Director, RIKEN BRC Team Leader, Technology and Development Team for Mammalian Cellular Dynamics Head, Experimental Animal Division	Project for elucidation of emotion and learning by genetic manipulation of neural circuit

**10. BRC's Contract Research (~2006)**

Representative	Organization	Theme
Dr. Toshikuni SASAOKA	Center for Transgenic Animals and Plants, National Institute for Basic Biology	Development of transgenic mice
Dr. Kazuhiro IKENAKA	National Institute for Basic Biology	Development of mouse strains for physiological studies
Dr. Kenji SAKIMURA	Niigata University	Development of mouse strains relevant to diseases of brain and nervous system
Dr. Yumiko SAGA	National Institute of Genetics	Development of mouse strains relevant to early developmental abnormalities
Dr. Noriko OSUMI	Tohoku University	Development of mouse models for life-style related diseases
Dr. Kenichi YAGAMI	University of Tsukuba	Development of mouse models for life-style related diseases
Dr. Jyunji TAKEDA	Osaka University	Development of comprehensive genetically-modified mouse strains by transposon system.
Dr. Minesuke YOKOYAMA	Mitsubishi Kagaku Institute of Life Sciences	Maintenance of embryo bank for genetically-engineered mice and improvement of relevant basic technologies
Dr. Shinichi AIZAWA	Center for Developmental Biology	Development of mouse strains for regeneration and organogenesis

**【RIKEN BRC Grant for R&D on Genetically-Modified Mouse Strains】 (2007 ~ 2008)**

Representative	Organization	Theme
Dr. Keiji TANAKA	Center Laboratory of Frontier Science	Creation of novel foundation in the proteolysis pathways by comprehensive production of genetically modified mice
Dr. Yumiko SAGA	Department of Genetics, Research Institute of Genetics	Creation of mouse collection for visualizing constitutive proteins of intracellular organella (centromeres and P-body) and proteomics
Dr. Kenichi YAGAMI	Laboratory Animal Resource Center, University of Tsukuba	Fundamental study for establishment of tissue-specific Cre and highly fluorescent reporter mice
Representative	Organization	Theme
Dr. Toshikuni SASAOKA	Center for Transgenic Animals and Plants, National Institute for Basic Biology	Development of transformed mice for the promotion of fundamental study in biological sciences
Dr. Mitsuhiro TANAKA	Nagasaki International University	Elucidation of causes for male infertility by production of sperm cell-specific genes knockout mice
Dr. Masatake ARAKI	Institute of Resource Development, Kumamoto University	Development of Cre-driver mice essential for conditional gene knockout
Dr. Shinji HIROTSUNE	Graduate School of Medicine, Osaka City University	Systematic creation of knockout mice for the intracellular transport genes

Representative	Organization	Theme
Dr. Hiroshi WADA	Department of Single Molecule Biophysics, The Insititute of Scientific and Industrial Research, Osaka University	Organelle dynamics for expression and regulation of higher biological functions
Dr. Junichi MIYAZAKI	Graduate School of Medicine, Faculty of Medicine, Osaka University	Development of knockout mouse strains for genes specifically expressed in germ cells, early embryos and ES cells
Dr. Kenji TANIGAKI	Research Insititute, Shiga Medical Center	Comprehensive examination on epistasis of schizophrenia fragility candidate genes
Dr. Michihiro IGARASHI	Guraduate School of Madical and Dental Scienses, Niigata University	Production of genetically modified mouse models for the study of molecular brain sciences and life-style related diseases
Dr. Hiroaki HONDA	Research Insititute for Radiation Biology and Medicine, Hiroshima University	Production of genetically modified mice to elucidate novel phenomina of life

#### 【Research for Development of New Cell Resource】 (2007 ~ 2008)

Representative	Organization	Theme
Dr. Yasushi SATO	Cell Resource Center for Biomedical Research, Institute of Development, Aging and Cancer, Tohoku University	Analysis of characteristics of cell materials such as human cancer cell line and animal cell line
Dr. Yukio KATO	Department of Dental and Medical Biochemistry, Hiroshima University Graduate School of Biomedical Sciences	Deposit of human mesenchymal stem cells
Dr. Akihiro UMEZAWA	Head of Department of Reproductive Biology, National Institute for Child Health and Development	Analysis of characteristics of immortalized cell lines derived from bioresources obtained in the clinic of pediatrics
Dr. Fumihiro SUGIYAMA	Laboratory Animal Resource Center, University of Tsukuba	Establishment of mouse ES cell lines derived from inbred mouse strain to produce gene knock-out mouse and the analysis of characteristics of those established ES cell lines

#### 11. The Project for Realization of Regenerative Medicine

Representative	Contributing Researcher	Theme
Yoshiki SASAI (Group Director, Organogenesis Neurogenesis Group, Center for Developmental Biology, RIKEN)	Yukio NAKAMURA (Head, Cell Engineering Div.)	Development of technologies for efficient differentiation of human pluripotent stem cells and transplantation of those differentiated cells, and supply of materials and technologies for stem cell biology to scientists in Japan

#### 12. Health and Labour Sciences Research Grant

Representative	Contributing Researcher	Theme
Dr. Shigeki YUASA (Director, Department of Ultrastructural Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry)	Shigeharu WAKANA (Team Leader, Technology and Development Team for Mouse Phenotype Analysis)	A study on therapeutic method for developmental disorder based on pathogenesis. (The Research Grant 18A-3 for Nervous and Mental Disorders)

**13. Special Postdoctoral Researcher, Basic Science Program**

Researcher	Host Lab.	Adviser	Theme
Rie NISHIYAMA	Shinozaki Research Collaborative Group	Kazuo SHINOZAKI (Laboratory Head)	Genetic analyses of sex determination in the dioecious plant, silene latifolia using sex conversion by DNA demethylation of sex chromosomes
Hiroimi MIKI	Bioresource Engineering Div.	Atsuo OGURA (Head)	Establishment of germ cells and ES cells by genome reprogramming technology

**14. Junior Research Associate**

Trainee	Host Lab.	Adviser	Theme
Michiya NOGUCHI	Gene Engineering Div.	Kazunari K. YOKOYAMA (Head)	Functional analysis of proliferation related acidic leucine-rich protein with a molecular weight of 31KD (PAL31)
Natsumi SHIMIZU	Subteam for Manipulation of Cell Fate	Hiroyuki MIYOSHI (Subteam Leader)	Identification of molecules enabled ex vivo expansion of hematopoietic stem cells
Shin-ichi NODA	Subteam for Manipulation of Cell Fate	Hiroyuki MIYOSHI (Subteam Leader)	Studies on the maintenance of undifferentiated state in mouse hematopoietic stem cells
Masahide MIZOGUCHI	Shinozaki Research Collaborative Group	Kazuo SHINOZAKI (Laboratory Head)	Functional analysis of SnRK2b subfamily in Arabidopsis

**15. International Exchanges****Acceptance of Foreign Researchers & Students**

Researcher & Student	Organization	Theme	Host	Term
Hung Shu Hsuan	National Laboratory Animal Center (Taiwan)	Training Course for maintenance and quality control of genetically-engineered mice	Atsushi YOSHIKI (Head, Experimental Animal Div.)	Jul. 31 ~ Aug. 31, 2006
Lai Wei Jen	National Laboratory Animal Center (Taiwan)	Training Course for maintenance and quality control of genetically-engineered mice	Atsushi YOSHIKI (Head, Experimental Animal Div.)	Jul. 31 ~ Aug. 31, 2006
Yu Ching Hung	National Laboratory Animal Center (Taiwan)	Technical training course for cryopreservation of mouse sperm and embryos	Atsuo OGURA (Head, Bioresource Engineering Div.)	Jul. 31 ~ Aug. 31, 2006
Yu Ching Hung	National Laboratory Animal Center (Taiwan)	Technical training course for cryopreservation of mouse sperm and embryos	Atsuo OGURA (Head, Bioresource Engineering Div.)	Jul. 31 ~ Aug. 31, 2006
Zhang Xin Chuang	Lan Zhou Institute of Biological Products (China)	Training course for management of SPF animal facility	Atsushi YOSHIKI (Head, Experimental Animal Div.)	Jan. ~ Feb., 2007
Ban Jian Rong	Lan Zhou Institute of Biological Products (China)	Training course for microbial and genetic quality tests	Atsushi YOSHIKI (Head, Experimental Animal Div.)	May ~ Aug., 2007
He Jun Li	Lan Zhou Institute of Biological Products (China)	Training course for microbial and genetic quality tests	Atsushi YOSHIKI (Head, Experimental Animal Div.)	May ~ Aug., 2007
Nitcha Chamreonsakri	Chulalongkorn Univ. (Thailand)	Taxonomic study on halophilic bacteria from fermented fish, <i>Pla-ra</i> .	Takashi ITO (Senior Research Scientist, Microbe Div.)	Sep. 1, 2007 ~ Feb. 29, 2008
Babak Behnam	2007 Postdoctoral Fellowship for Research Abroad (JSPS)	Study for molecular mechanisms of environmental stress response and tolerance in higher plant	Kazuo SHINOZAKI (Laboratory Head, Shinozaki Research Collaborative Group)	Oct. 4, 2007 ~ Oct. 3, 2009

Researcher & Student	Organization	Theme	Host	Term
Yaowanoot Promnuan	Chiang Mai Univ. (Thailand)	Diversity of actinomycetes associated with bee lives in Thailand	Takuji KUDO (Senior Research Scientist, Microbe Div.)	Apr. 1 ~ May 30, 2008
Sirilak Namwong	Suan Sunandha Rajabhat (Thailand)	Taxonomy of lipase-producing halophilic bacteria.	Takashi ITO (Senior Research Scientist, Microbe Div.)	Apr. 9 ~ Jun. 10, 2008