

List of the Continuing Projects for Grant-in-Aid for Young Scientists (S)
of KAKENHI

Integrated Science and Innovative Science (25Projects)

○ Comprehensive fields (16Projects)

Principal Investigator		Title	Term of Project	Total (Thousand yen)
Katsuyuki Sakai	The University of Tokyo, Graduate School of Medicine, Associate Professor	Neural Mechanisms of Higher Thought Processes in Human	FY2007-2011	75,200
Mikio Hoshino	National Center of Neurology and Psychiatry, National Institute of Neuroscience, Director	Strategy for producing a variety types of neurons by regulating spatial and temporal identities of neural stem cells	FY2007-2011	88,600
Hirokazu Hirai	Gunma University, Graduate School of Medicine, Professor	Establishment and application of lentivector-based production of gene-rescue mouse for exploring gene functions	FY2007-2011	79,600
Eiji Hoshi	Tamagawa University, Brain Science Institute, Professor	Involvement of the frontal cortex, basal ganglia, and cerebellum in voluntary movement	FY2007-2011	88,500
Gentaro Taga	The University of Tokyo, Graduate School of Education, Professor	Developmental brain sciences toward understanding of origin of intelligence	FY2008-2012	80,000
Haruhiko Bito	The University of Tokyo, Graduate School of Medicine, Associate Professor	Activity-dependent mechanisms regulating dendritic morphology and function	FY2008-2012	80,600
Michiko Shirane	Kyushu University, Medical Institute of Bioregulation, Associate Professor	Molecular mechanisms for neuronal function via vesicular trafficking	FY2008-2012	77,000
Mitsutoshi Setou	Hamamatsu University School of Medicine, Molecular Imaging Frontier Research Center, Professor	Multi-dimensional Omics on Brain Anatomy	FY2008-2012	78,100
Masaki Fukata	National Institute for Physiological Sciences, Department of Cell Physiology, Professor	Synaptic regulatory mechanisms by novel AMPA receptor modulators	FY2008-2012	78,100
Masahito Ikawa	Osaka University, Research Institute for Microbial Diseases, Associate Professor	In vivo gene function analysis using lentiviral vector	FY2008-2012	74,500
Masaru Tanaka	Yamagata University, Graduate School of Science and Engineering, Professor	Inhibitory effects on the growth of cancer cells using surface topography	FY2008-2012	74,500
Daichi Nozaki	The University of Tokyo, Graduate School of Education, Associate Professor	Neural processes underlying motor control and learning of bimanual movement	FY2008-2012	66,900
Akio Namiki	Chiba University, Graduate School of Engineering, Associate Professor	Research of the Next Generation of High-speed Advanced Robot Hand System	FY2009-2013	77,400
Ryuichi Shirasaki	Osaka University, Graduate School of Frontier Biosciences, Associate Professor	Identification of Molecular Programs That Generate Neuronal Circuit Diversity	FY2009-2013	72,900
Kazunobu Sawamoto	Nagoya City University, Graduate School of Medical Sciences, Professor	Mechanisms of adult neurogenesis	FY2009-2013	80,200
Makoto Miyazaki	Kochi University of Technology, Research Institute of KUT, Assistant Professor	The neural mechanism of Bayesian integration in the perceptuo-motor system	FY2009-2013	79,900

○ New multidisciplinary fields (9Projects)

Principal Investigator		Title	Term of Project	Total (Thousand yen)
Mayumi Ishizuka	Hokkaido University, Graduate School of Veterinary Medicine, Associate Professor	Environmental impact of toxic substances on wildlife and species differences	FY2007–2011	86,600
Teruo Ono	Kyoto University, Institute for Chemical Research, Professor	Current-induced spin dynamics and its application to spintronic devices	FY2007–2011	87,000
Asako Sugimoto	Tohoku University, Graduate School of Life Sciences, Professor	Gene networks that regulate dynamics of cytoskeletons in animal development	FY2007–2011	88,300
Michihiro Mochida	Nagoya University, Institute for Advanced Research, Associate Professor	Atmospheric aerosol properties inferred from their external mixing state	FY2008–2012	80,100
Tadaaki Nagao	National Institute for Materials Science, Materials Nanoarchitectonics, Independent Young Scientist	Architectonics of metallic nano-materials and infrared plasmons	FY2008–2012	88,900
Kenji Kawamura	National Institute of Polar Research, Division of Research and Education, Assistant Professor	Mechanisms of glacial-interglacial climatic changes explored with Antarctic ice core analyses and climate modeling	FY2009–2013	83,000
Masaki Kakeyama	The University of Tokyo, Graduate School of Medicine, Assistant Professor	Microscopic analysis based on the quantitative behavioral tests in rodents for identification of the molecular target of developmental neurotoxicity	FY2009–2013	79,200
Hitoshi Morikawa	Tokyo Institute of Technology, Department of Built Environment, Associate Professor	A new development of inversion technique to estimate 3-D ground structure using microseism, gravity, and magnetic surveys	FY2009–2013	67,700
Yutaka Satou	Kyoto University, Graduate School of Science, Associate professor	A systems-level understanding of gene networks for the development and evolution of the chordate body plan	FY2009–2013	80,200

Humanities and Social Sciences (7Projects)

○ Humanities (4Projects)

Principal Investigator		Title	Term of Project	Total (Thousand yen)
Hitoshi Kobayashi	Osaka City Museum Organization – The Museum of Oriental Ceramics, Curatorial Department, Curator	Synthetic Studies on Tomb Figurines in the Sui and Tang Dynasties	FY2007–2011	3,700
Akira Takada	Kyoto University, Graduate School of Asian and African Area Studies, Associate Professor	Cultural formation of responsibility in caregiver-child interactions	FY2007–2011	50,400
Naoya Katsumata	Kyoto University, Graduate School of Human and Environmental Studies, Associate Professor	Judaism's view of humankind: creation of a textual database on minorities and suggestions for modern society	FY2008–2012	81,400
Kiyofumi Kato	The National Institute of Japanese Literature, Department of Literary Resource Studies, Assistant Professor	International Synthetic Research about a Repatriation Problem and an Area Fluctuation in Postwar East Asia	FY2009–2013	61,700

○ Social sciences(3Projects)

Principal Investigator		Title	Term of Project	Total (Thousand yen)
Kaoru Iokibe	The University of Tokyo, Institute of Social Science, Associate Professor	Treaty Revision in the State Building Process of Meiji Japan	FY2007-2011	9,400
Kenichiro Tsutsui	Tohoku University, Graduate School of Life Sciences, Associate Professor	Neural mechanisms of category formation and categorical reasoning	FY2007-2011	87,700
Naohito Abe	Hitotsubashi University, The Institute of Economic Research, Associate Professor	An Investigation into Household Consumption and the Labor Supply Using High-frequency Marketing Data of Household Consumption and Labor Supply	FY2009-2013	70,000

Science and Engineering (42Projects)

○ Mathematical and physical sciences(11Projects)

Principal Investigator		Title	Term of Project	Total (Thousand yen)
Kensuke Kobayashi	Kyoto University, Institute for Chemical Research, Associate Professor	Generation and Detection of Quantum Correlation in Semiconductor Nanostructures	FY2007-2011	84,900
Yoichi Ando	Osaka University, Institute of Scientific and Industrial Research, Professor	Mott Insulator and Spin Hall Insulator: Elucidating the Physics of Nontrivial Insulators	FY2007-2011	96,300
Kei Hirose	Tokyo Institute of Technology, Graduate School of Science and Engineering, Professor	High-Pressure Earth Science: Materials Properties in the Lowermost Mantle and Core	FY2007-2011	88,100
Tetsushi Ito	Kyoto University, Graduate School of Science, Associate Professor	Comprehensive studies on Shimura varieties, arithmetic geometry, Galois representations, and automorphic representations	FY2008-2012	29,400
Daisuke Yonetoku	Kanazawa University, School of Mathematics and Physics, Assistant Professor	Polarization Measurement aboard the Satellite and Solution of the Emission Mechanism of the Gamma-Ray Bursts	FY2008-2012	49,900
Naoki Yoshida	The university of Tokyo, Institute for the Physics and Mathematics of the Universe, Astrophysicist	Simulations of the Formation, Evolution, and Clustering of Early Cosmic Structure	FY2008-2012	49,300
Tsuyoshi Nakaya	Kyoto University, Graduate School of Science, Professor	Study of Neutrino Mixing by using accelerator neutrino beams.	FY2008-2012	64,100
Tsuyoshi Kimura	Osaka University, Graduate school of Engineering Science, Professor	Correlation between magnetic and dielectric properties	FY2008-2012	57,200
Kenichi Bannai	Keio University, Department of Mathematics, Assistant Professor	Strategic Research to solve certain conjectures in Arithmetic Geometry	FY2009-2013	71,800
Shoji Hashimoto	High Energy Accelerator Research Organization (KEK), Institute of Particle and Nuclear Studies, Associate Professor	Study of the topological vacuum structure of Quantum Chromodynamics using the lattice field theory with exact chiral symmetry	FY2009-2013	50,800
Yusuke Yokoyama	The University of Tokyo, Atmosphere and Ocean Research Institute, Associate Professor	Geochemical fingerprints of the climate in the past recorded in the geological archives	FY2009-2013	81,200

○ Chemistry(11Projects)

Principal Investigator		Title	Term of Project	Total (Thousand yen)
Shigehiro Yamaguchi	Nagoya University, Graduate School of Science, Professor	New pi-Electron Materials with Extremely Superior Photophysical and Electronic Properties	FY2007-2011	87,900
Yoshiaki Nishibayashi	The University of Tokyo, Graduate School of Engineering, Associate Professor	Development of Innovative Transformations by Using Synergistic Effect of Plural Metals	FY2007-2011	61,500
Masami Kamigaito	Nagoya University, Graduate School of Engineering, Professor	Precision Synthesis of Multiple Controlled Polymers via Radical Polymerization	FY2007-2011	88,600
Shiyoshi Yokoyama	Kyushu University, Institute for Materials Chemistry and Engineering, Professor	Polymer photonic crystal for active optical device applications	FY2007-2011	88,100
Shinichi Ohkoshi	The University of Tokyo, Graduate School of Science, Professor	Study of photo-spin science on the next-generation with multiple phase transition materials	FY2008-2012	81,200
Ken Tanaka	Tokyo University of Agriculture and Technology, Center for Innovation and Intellectual Property, Professor	Development of Innovative Molecular Transformations via Cationic Rhodacycles as Active Species	FY2008-2012	65,400
Masaharu Nakamura	Kyoto University, Institute for Chemical Research, Professor	Development of New Synthetic Organic Reactions Based on the Universal Metals Catalysis	FY2008-2012	80,500
Kazuya Kikuchi	Osaka University, Graduate School of Engineering, Professor	Design, Synthesis and Biological Application of Chemical Probes for in vivo Imaging	FY2008-2012	81,500
Takeaki Ozawa	The University of Tokyo, Graduate School of Science, Professor	Development of Innovative Methods for Analyzing Biological Molecules in Living Cells Based on Protein Chemistry	FY2009-2013	82,100
Kenichiro Itami	Nagoya University, Graduate School of Science, Professor	Innovative Chemical Synthesis through Carbon-Hydrogen Bond Transformation	FY2009-2013	81,300
Kazushi Kinbara	Tohoku University, Institute of Multidisciplinary Research for Advanced Materials, Professor	Development of supramolecular tools for control of chemical events	FY2009-2013	69,400

○ Engineering(20Projects)

Principal Investigator		Title	Term of Project	Total (Thousand yen)
Heiji Watanabe	Osaka University, Graduate School of Engineering, Professor	Fabrication of High-quality SiC-MOSFETs for Advanced Power Electronics	FY2007-2011	68,700
Toshiyuki Tsuchiya	Kyoto University, Graduate School of Engineering, Associate Professor	Explanation of reaction layer fatigue in silicon microstructure for development of highly-reliable MEMS devices.	FY2007-2011	86,300
Yasutaka Fujimoto	Yokohama National University, Graduate School of Engineering, Associate Professor	A High-power and Flexible Humanoid Robot Driven by Artificial Muscles of Back-drivable Spiral Motors	FY2007-2011	89,600
Yoshikazu Takahashi	Kyoto University, Disaster Prevention Research Institute, Associate Professor	Improvement of Disaster Mitigation Technology by Functional Cooperation of Existing Seismic Test Facilities	FY2007-2011	88,900
Yutaka Yoshida	Nagoya University, Graduate School of Engineering, Associate Professor	Creation of hybrid energy materials with highly ordered nano-structure	FY2007-2011	79,200
Takahito Ono	Tohoku University, Graduate School of Engineering, Professor	Sensing Based on Nanomechanical systems coupled with stochastic resonance	FY2008-2012	77,600
Seiichi Hata	Tokyo Institute of Technology, Precision and Intelligence Laboratory, Associate Professor	Combinatorial Search and Nanoprocessing of Pt-free Amorphous Alloys for Glass Molding Die	FY2008-2012	82,100

Principal Investigator		Title	Term of Project	Total (Thousand yen)
Hiroaki Kakiuchi	Osaka University, Graduate School of Engineering, Associate Professor	Development of highly efficient fabrication process of thin film devices on plastic materials using atmospheric-pressure plasma	FY2008-2012	61,500
Mamoru Tanahashi	Tokyo Institute of Technology, Graduate School of Science and Engineering, Associate Professor	A Study on Lean Turbulent Premixed Flame and Its Nonlinear Controls by Multi-Dimensional/Multi-Variable Laser Diagnostics and Large-Scale DNS	FY2008-2012	75,800
Takao Someya	The University of Tokyo, Graduate School of Engineering, Professor	Stretchable Large-Area Integrated Circuits by Nano-Printing Technology	FY2008-2012	73,100
Shuji Himeno	Nagaoka University of Technology, School of Engineering, Associate Professor	Development of CO2 Separation and Recovery Technology with High Performance CO2 Separation Membrane for Emission Limitation of Greenhouse Gases.	FY2008-2012	77,900
Hiroyuki Fukuyama	Tohoku University, Institute of Multidisciplinary Research for Advanced Materials, Professor	Novel Processing of High Quality Aluminum Nitride Crystal using High Temperature Chemical Reaction Fields - Its Polarity and Growth Mechanism	FY2008-2012	75,800
Takuji Waseda	The University of Tokyo, Graduate School of Frontier Sciences, Associate Professor	Observational study to determine the causes of the freak wave generation in the open ocean	FY2008-2012	58,900
Hidekazu Tanaka	Osaka University, The Institute of Scientific and Industrial Research, Professor	Novel Nano-electronics based on Strongly Correlated Oxides	FY2009-2013	75,800
Keisuke Morishima	Tokyo University of Agriculture and Technology, The Graduate School of Engineering, Associate Professor	Construction and Function Emergence of Cellular Build up Wet Nano Robotics	FY2009-2013	86,700
Toshihiko Hirooka	Tohoku University, Research Institute of Electrical Communication, Associate Professor	Generation of Ultrahigh-speed Optical Parabolic Pulses and Their Applications to Optical Transmission and Signal Processing	FY2009-2013	76,900
Takashi Yamaguchi	Nagaoka University of Technology, Department of Civil and Environmental Engineering, Associate Professor	Development of next generation water resources circulation technology, using sulfur cycle microbes, applicable to developing countries	FY2009-2013	81,000
Kazuhide Ito	Kyushu University, Interdisciplinary Graduate School of Engineering Sciences, Associate Professor	Prediction and Control of Human Exposure of Indoor Aerosol Based on Public health Engineering Approach	FY2009-2013	48,600
Takayoshi Nakano	Osaka University, Graduate School of Engineering, Professor	Induction of bone tissue with oriented BAp crystallites by materials scientific approach based on anisotropy	FY2009-2013	81,000
Koji Gotoh	Kyushu University, Faculty of Engineering, Associate Professor	Improvement of the Fatigue Life Estimation for Large Welded Built-up Structures Based on the Estimation of Fatigue Crack Growth Histories	FY2009-2013	80,600

Biological Sciences (34Projects)

○ Biology (7Projects)

Principal Investigator		Title	Term of Project	Total (Thousand yen)
Shinichiro Sawa	The University of Tokyo, Graduate school of Science, Associate Professor	An analysis of CLE peptides as an morphoges in plant morphogenesis	FY2007–2011	88,300
Kazushige Touhara	The University of Tokyo, Graduate school of Agricultural and Sciences, Professor	Molecular mechanisms for recognition and signal transduction of sex-specific peptides in the mouse vomeronasal organ	FY2007–2011	88,700
Kouki Hikosaka	Tohoku University, Graduate School of Life Sciences, Professor	A study of plant adaptation to elevated CO ₂ using CO ₂ springs as a future ecosystem	FY2008–2012	80,100
Hiroaki Miki	Osaka University, Institute for Protein Research, Professor	Role of PIP3 Transport in Regulation of Cell Polarity	FY2008–2012	70,200
Toru Miura	Hokkaido University, Graduate School of Environmental Science, Associate Professor	Study on the signal communication systems related to the social organization in termites	FY2009–2013	57,700
Noboru Mizushima	Tokyo Medical and Dental University, Graduate School of Medical and Dental Sciences, Professor	Molecular mechanism of autophagosome formation in mammalian cells	FY2009–2013	80,400
Mitunori Saitou	Kyoto University, Graduate School of Medicine, Professor	Unveiling the mechanism of action of Blimp1, a transcriptional regulator that governs fates and homeostasis of diverse cell lineages	FY2009–2013	76,100

○ Agricultural sciences (6Projects)

Principal Investigator		Title	Term of Project	Total (Thousand yen)
Ken Shirasu	RIKEN, Plant Immunity Research Group, Group Director	Molecular mechanisms of plant immunity and its suppression by pathogens	FY2007–2011	88,100
Takashi Yoshimura	Nagoya University, Graduate School of Bioagricultural Sciences, Professor	Mechanisms underlying the deep brain photoreception and seasonal time measurement in vertebrates	FY2007–2011	88,600
Masao Watanabe	Tohoku University, Graduate School of Life Sciences, Professor	Molecular basis of self/non-self recognition in self-incompatibility on cruciferous plants	FY2008–2012	80,000
Keiji Tanimoto	University of Tsukuba, Graduate School of Life and Environmental Sciences, Associate Professor	Mechanisms for methylation imprinting establishment after fertilization	FY2008–2012	80,000
Ken-Ichi Nonomura	National Institute of Genetics, Experimental Farm, Associate Professor	Elucidation of genetic systems conducting an early development of plant germ cells	FY2009–2013	65,500
Takuya Kitaoka	Kyushu University, Graduate School of Bioresource and Bioenvironmental Sciences, Associate Professor	Functional Architectonics of Glyco-Biomaterials Designed via Cellulosic Nano-Assemblers	FY2009–2013	77,100

○ Medicine, dentistry, and pharmacy (21Projects)

Principal Investigator		Title	Term of Project	Total (Thousand yen)
Taisuke Tomita	The University of Tokyo, Graduate School of Pharmaceutical Sciences, Associate Professor	Discovery for mechanism-based drugs for Alzheimer's disease by chemical biology	FY2007–2011	88,600
Kunihiko Nishino	Osaka University, Institute of Scientific and Industrial Research, Associate Professor	Roles of orphan transporters in multidrug-resistant bacteria and development of therapeutic strategies to control infectious diseases	FY2007–2011	49,600
Kiyoshi Takeda	Osaka University, Graduate School of Medicine, Professor	Mechanism for regulation of innate immune responses	FY2007–2011	88,600

Principal Investigator		Title	Term of Project	Total (Thousand yen)
Mineo Kurokawa	The University of Tokyo, University Hospital, Professor	Elucidation of molecular pathogenesis and therapeutic targets for refractory hematological malignancies	FY2007-2011	77,300
Yoko Aoki	Tohoku University, Graduate School of Medicine, Associate Professor	Novel functions of proto-oncogenes in human development	FY2007-2011	81,200
Emi Nishimura	Tokyo Medical and Dental University, Medical Research Institute, Professor	Elucidation of the mechanisms of hair graying: an approach for tissue ageing	FY2007-2011	88,600
Toshihide Yamashita	Osaka University, Graduate School of Medicine, Professor	Molecular mechanism of regeneration and plasticity of the injured central nervous system	FY2007-2011	88,400
Masaru Inatani	Kumamoto University, University Hospital, Lecturer	Elucidation of the role of heparan sulfate in neural crest cell differentiation and establishment of a new concept of glaucoma pathogenesis	FY2007-2011	88,100
Masayuki Inoue	The University of Tokyo, Graduate School of Pharmaceutical Sciences, Professor	Total Syntheses and New Biological Applications of Architecturally Complex Natural Products	FY2008-2012	81,200
Hirofumi Shimizu	University of Fukui, Department of Medical Sciences, Lecturer	Simultaneous recording of conformational changes and ionic currents of single-molecular ion channels reveals the relationship between membrane potentials and motions of the channels	FY2008-2012	70,600
Akinori Takaoka	Hokkaido University, Institute for Genetic Medicine, Professor	Molecular mechanisms for the detection of microbes and cancer cells in innate immunity	FY2008-2012	77,200
Fumihiko Ishikawa	RIKEN, Research Unit for Human Disease Model, Unit Leader	Mechanisms of chemotherapy resistance in human acute myelogenous leukemia (AML) stem cells	FY2008-2012	65,700
Koji Yasutomo	The University of Tokushima, Graduate School Institute of Health Biosciences, Professor	Establishment of autoimmune disease therapies based on the elucidation of target genes	FY2008-2012	81,200
Satoshi Fukumoto	Tohoku University, Graduate School of Dentistry, Professor	Analysis and regulation of tooth morphogenesis	FY2008-2012	78,100
Motomu Kanai	The University of Tokyo, Graduate School of Pharmaceutical Sciences, Professor	Streamlining Organic Synthesis Based on the Development of New Asymmetric Catalysis; Expansion of Pharmaceutical Leads	FY2009-2013	86,100
Masaaki Komatsu	Tokyo Metropolitan Organization for Medical Research, Tokyo Metropolitan Institute of Medical Science, Project Sub-Leader	Pathophysiological roles of selective autophagy	FY2009-2013	83,000
Sho Yamasaki	Kyushu University, Medical Institute of Bioregulation, Professor	Molecular basis for immunological "risk management" through lectin receptors	FY2009-2013	49,800
Fumio Arai	Keio University, School of Medicine, Lecturer	Biomimetic stem cell niche: Reconstruction of hematopoietic niche complex for the expansion of stem cells	FY2009-2013	80,200
Kei Ohnuma	The University of Tokyo, The Institute of Medical Science, Assistant Professor	Scientific research of transplantation tolerance targeting CD26/caveolin-1 costimulation pathway	FY2009-2013	49,500
Koshi Mimori	Kyushu University, Medical Institute of Bioregulation, Lecturer	Clarification of the metastatic cascade mediated through microRNA in G-I tract carcinomas	FY2009-2013	79,000
Shu Takeda	Keio University, Faculty of Medicine, Associate Professor	Molecular elucidation of the interrelationship between bone and other tissues: bone-brain axis and gut-bone axis	FY2009-2013	80,400