

Grant-in-Aid for Scientific Research (S)

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□ Distribution of the Newly Adopted Projects

Purpose and Character of Grant-in-Aid for Scientific Research (S) (excerpt from the “Application Procedures for Grants-in-Aid for Scientific Research-KAKENHI-”):

1) Funding target:

Research plan conducted by a single or a relatively small number of researchers that aims at achieving a major development in creative and pioneering research

2) Range of total budget:

50 million yen to 200 million yen

3) Research period:

5 years as a general rule

【 New Projects 】

	Number of Applications			Total Grant Disbursements※ (FY2020) (Thousands of yen)	Per-project Grants※ (FY2020)	
	Received	Adopted	Ratio		Average	Largest
			(%)		(Thousands of yen)	(Thousands of yen)
Total	685	80	11.7	3,209,800	40,123	114,000

【 New and Ongoing Projects 】

	Number of Applications	Total Grant Disbursements※ (FY2020) (Thousands of yen)	Per-project Grants※ (FY2020)	
			Average	Largest
		(Thousands of yen)	(Thousands of yen)	(Thousands of yen)
Total	403	11,416,900	28,330	114,000

※ Direct expense only

List of the Newly Adopted Projects for Grant-in-Aid for Scientific Research (S) of KAKENHI, FY2021

OBroad Section A (6 Projects)

(Thousands of Yen)

Research Project Number	Principal Investigator (Name, Researcher Number, Research Institution)		Title	Term of Project	Annual Budget
					Budget throughout for the Entire Research Period
20H05629	TANAKA Ryuichi 00397704	The University of Tokyo, Institute of Social Science, Professor	Primary and Secondary Education under Declining Population: An Empirical Analysis with Administrative Data	FY2019-2024	23,700
					103,000
20H05630	SADANOBU Toshiyuki 50235305	Kyoto University, Graduate School of Letters, Professor	Interdisciplinary Empirical Research Project on Disfluent Utterance Patterns	FY2019-2024	21,600
					112,500
20H05631	ONO Yoshiyasu 70130763	Osaka University, Institute of Social and Economic Research, Specially Appointed Professor	Economic stagnation and widening wealth inequality: Crises of the world economy and a construction of a unified macroeconomic theory	FY2019-2024	24,800
					135,600
20H05632	OHTAKE Fumio 50176913	Osaka University, Graduate School of Economics, Professor	Application of Behavioral Economics to Policy Issues: Healthcare, Disaster Prevention, Crime Prevention, Labor, and Education	FY2019-2024	33,300
					151,400
20H05633	KAMIHIGASHI Takashi 30324908	Kobe University, Center for Computational Social Science, Director	Risk Management of Comprehensive Monetary/Fiscal Policy: From Financial Crises to International Relations and Natural Disasters	FY2019-2024	28,100
					146,400
20H05634	SEIKE Akira 40303995	Okayama University, Graduate School of Humanities and Social Sciences, Professor	Interdisciplinary research on the structure of monumental royal-class mounded tombs	FY2019-2024	28,100
					150,500

OBroad Section B (14 Projects)

(Thousands of Yen)

Research Project Number	Principal Investigator (Name, Researcher Number, Research Institution)		Title	Term of Project	Annual Budget
					Budget throughout for the Entire Research Period
20H05635	SUDA Toshimi 30202138	Tohoku University, Research Center for Electron-Photon Science, Professor	Electron-proton scattering using the lowest-ever energy beam for precise determination of proton charge radius.	FY2019-2024	36,200
					132,500
20H05636	SEKIGUCHI Kimiko 70373321	Tohoku University, School of Science, Associate Professor	Determination of Three-Nucleon Forces via Three-Nucleon Scattering	FY2019-2024	57,500
					151,600
20H05637	IWATA Takahiro 70211761	Yamagata University, Faculty of Science, Professor	Study of nucleon spin structure in quark level with a large polarized target	FY2019-2023	77,400
					155,200
20H05638	CHUJO Tatsuya 70418622	University of Tsukuba, Faculty of Pure and Applied Sciences, Lecturer	Gluon saturation and origin of QGP probed by forward photons at LHC	FY2019-2024	22,500
					149,800
20H05639	YOKOYAMA Jun'ichi 50212303	The University of Tokyo, Graduate School of Science, Professor	Inclusive study on gravitational-wave astrophysics	FY2019-2024	83,900
					155,700
20H05640	TAKITA Masato 20202161	The University of Tokyo, Institute for Cosmic Ray Research, Professor	Novel Development of Highest Energy Gamma Ray Astronomy	FY2019-2024	43,100
					152,300
20H05641	NOTOMI Masaya 50393799	Tokyo Institute of Technology, School of Science, Department of Physics, Professor	Reconfigurable topological nanophotonics	FY2019-2024	30,700
					141,300

(Thousands of Yen)

Research Project Number	Principal Investigator (Name, Researcher Number, Research Institution)		Title	Term of Project	Annual Budget
					Budget throughout for the Entire Research Period
20H05642	KATSURAGAWA Masayuki 10251711	University of Electro-Communications, Graduate School of Informatics and Engineering, Professor	Establishment of high resolution laser spectroscopy in the vacuum ultraviolet region and its application to laser cooling of anti-hydrogen	FY2019-2024	30,100
					112,800
20H05643	MIYAKE Fusa 90738569	Nagoya University, Institute for Space-Earth Environmental Research, Associate Professor	Solar activity over the past 10,000 years	FY2019-2024	44,400
					152,400
20H05644	SHIMIZU Katsuya 70283736	Osaka University, Graduate School of Engineering Science, Professor	Synthesis and Development of Room-Temperature Superconducting Device	FY2019-2024	30,500
					151,200
20H05645	TATEMATSU Ken'ichi 40202171	National Astronomical Observatory of Japan, Nobeyama Radio Observatory, Professor	The earliest stage of star formation to be studied by observing deuterated molecules	FY2019-2024	114,000
					158,000
20H05646	SHIMOMURA Koichiro 60242103	High Energy Accelerator Research Organization, Institute of Material Structure Science, Professor	Precise measurement of the mass and magnetic moment of muon using electromagnetic traps and the search for new physics	FY2019-2024	30,200
					151,100
20H05647	OZAWA Kyoichiro 20323496	High Energy Accelerator Research Organization, Institute of Particle and Nuclear Studies, Associate Professor	Clear measurements of meson mass modifications in nucleus by using high intensity proton beam	FY2019-2024	38,500
					149,800
20H05648	NISHIMURA Shunji 90272137	RIKEN, Nishina Center, Senior Researcher	r-process nucleosynthesis and role of deformed nuclei	FY2019-2024	26,400
					146,400

○Broad Section C (9 Projects)

(Thousands of Yen)

Research Project Number	Principal Investigator (Name, Researcher Number, Research Institution)		Title	Term of Project	Annual Budget
					Budget throughout for the Entire Research Period
20H05649	SAMUKAWA Seiji 30323108	Tohoku University, Institute of Fluid Science, Professor	High-mobility Semiconductor Devices due to Control of Phonon Field caused by Defect-free Nano-periodic Structures	FY2019-2024	17,100
					150,000
20H05650	TANAKA Masaaki 30192636	The University of Tokyo, Graduate School of Engineering, Professor	Creation of New Spin-Functional Materials and Devices by Renaissance of Ferromagnetic Semiconductors	FY2019-2024	37,900
					151,800
20H05651	TABATA Hitoshi 00263319	The University of Tokyo, Graduate School of Engineering, Professor	Ultra High Sensitive Electric Nose for Medical Engineering Applications	FY2019-2024	30,900
					151,200
20H05652	TAKEMURA Yasushi 30251763	Yokohama National University, Faculty of Engineering, Professor	Elucidation of magnetic particle dynamics for diagnostic and therapeutic applications	FY2019-2024	35,000
					151,200
20H05653	HIRAKATA Hiroyuki 40362454	Kyoto University, Graduate School of Engineering, Professor	Nanomechanics on rewritable material strength by anomalous electrons	FY2019-2024	72,100
					154,800
20H05654	SATO Tetsuya 80249937	Waseda University, Faculty of Science and Engineering, Professor	Hypersonic Airframe/Engine Integration Experiment Using a Sounding Rocket FTB	FY2019-2024	32,500
					150,600
20H05655	KUBOTA Hitoshi 30261605	National Institute of Advanced Industrial Science and Technology, Department of Electronics and Manufacturing, Principal Research Manager	Development of artificial intelligence hardware using magnetic tunnel junctions	FY2019-2024	68,500
					154,500
20H05656	FUNAKI Ikkoh 50311171	Japan Aerospace Exploration Agency, Institute of Space and Astronautical Sciences, Professor	Research and Demonstration of Next Generation Hall Thrusters and their Mechanism for Producing High-speed Plasma Jet	FY2019-2024	54,000
					146,500

OBroad Section D (14 Projects)

(Thousands of Yen)

Research Project Number	Principal Investigator (Name, Researcher Number, Research Institution)		Title	Term of Project	Annual Budget
					Budget throughout for the Entire Research Period
20H05657	KIMURA Yuki 50449542	Hokkaido University, Institute of Low Temperature Science, Associate Professor	Paradigm shift in the method for observing non-equilibrium processes in real space: Elucidation of nucleation processes from solution by TEM	FY2019-2024	73,100
					154,900
20H05658	KATO Yasuhiro 40221882	The University of Tokyo, Graduate School of Engineering, Professor	Creation of a unified theory of global environmental changes and resource generation	FY2019-2024	104,300
					156,900
20H05659	SHIBATA Naoya 10376501	The University of Tokyo, Institute of Engineering Innovation, Professor	Development of atomic-resolution magnetic field imaging electron microscopy and its application to interface characterization in magnetic materials	FY2019-2024	8,400
					148,300
20H05660	HIRAKAWA Kazuhiko 10183097	The University of Tokyo, Institute of Industrial Science, Professor	Terahertz dynamics of single molecule transistors and its application to quantum information processing	FY2019-2024	45,900
					146,800
20H05661	KOSAKA Hideo 20361199	Yokohama National University, Faculty of Engineering, Professor	Universal quantum media conversion in diamond quantum storage	FY2019-2024	25,900
					150,800
20H05662	TAKEDA Jun 60202165	Yokohama National University, Faculty of Engineering Science, Professor	Development of Phase-Controlled Near Field Spectroscopy with Extremely High Spatiotemporal Resolution	FY2019-2024	39,000
					146,600
20H05663	MURASE Kuniaki 30283633	Kyoto University, Graduate School of Engineering, Professor	Analysis, Design, and Construction of Highly Concentrated Electrolytes for Innovative Electrodeposition Technologie	FY2019-2024	53,000
					153,000
20H05664	MATSUDA Kazunari 40311435	Kyoto University, Institute of Advanced Energy, Professor	Development of valley-spin quantum optics in atomically thin artificial hetero-structures	FY2019-2024	37,500
					151,000
20H05665	ONO Teruo 90296749	Kyoto University, Institute for Chemical Research, Professor	Ferrimagnetic spintronics and device application	FY2019-2024	52,000
					153,200
20H05666	SUZUKI Yoshishige 50344437	Osaka University, Graduate school of Engineering science, Professor	Spintronics based on the Information thermodynamics	FY2019-2024	49,000
					147,400
20H05667	YAMAYA Taiga 40392245	National Institutes for Quantum and Radiological Science and Technology, National Institute of Radiological Sciences, Group Leader	Whole gamma imaging to break through the physical limitation of positron emission tomography	FY2019-2024	37,700
					151,900
20H05668	KATAURA Hiramichi 30194757	National Institute of Advanced Industrial Science and Technology, Department of Materials and Chemistry, Visiting Scientist	Creation and application of perfect structure carbon nanotubes	FY2019-2024	30,900
					151,300
20H05669	NEMOTO Tomomi 50291084	National Institute of Natural Sciences, Exploratory Research Center on Life and Living Systems (ExCELLS), Professor	Creation of Neurophotonics and Elucidation of Brain Functions	FY2019-2024	60,900
					153,800
20H05670	OGURI Katsuya 10374068	NTT Basic Research Laboratories, Quantum Science and Technology Laboratory, Executive manager	Petahertz-scale solid state physics exploring by attosecond high-harmonic-based ultrafast spectroscopy	FY2019-2024	73,700
					154,900

OBroad Section E (8 Projects)

(Thousands of Yen)

Research Project Number	Principal Investigator (Name, Researcher Number, Research Institution)		Title	Term of Project	Annual Budget	
					Budget throughout for the Entire Research Period	
20H05671	NISHIBAYASHI Yoshiaki 40282579	The University of Tokyo, Graduate School of Engineering, Professor	Development of Innovative Molecular Transformations from Molecular Dinitrogen Using Super-Catalysts	FY2019-2024	58,100	153,600
20H05672	ISOBE Hiroyuki 30302805	The University of Tokyo, Graduate School of Science, Professor	Science of Post-nanocarbons: Structural science of nano π -space	FY2019-2024	15,000	149,800
20H05673	YAMADA Atsuo 30359690	The University of Tokyo, Graduate School of Engineering, Professor	Innovative energy storage materials based on the peculiar functions realized by isolated molecules/orbitals.	FY2019-2024	29,300	151,100
20H05674	SUGINOME Michinori 60252483	Kyoto University, Graduate School of Engineering, Professor	Dynamic Chiral Macromolecular Catalyst for Asymmetric Amplification	FY2019-2024	53,300	152,700
20H05675	FUKASE Koichi 80192722	Osaka University, Graduate School of Science, Professor	Elucidation of glycan function by synthetic glycans and glycan remodeling systems and their application to new immunotherapies	FY2019-2024	66,700	154,300
20H05676	KIMIZUKA Nobuo 90186304	Kyushu University, Graduate school of Engineering, Professor	Molecular Systems Chemistry for the Efficient Utilization of Photon Energy	FY2019-2024	15,100	149,900
20H05677	TOMOOKA Katsuhiko 70207629	Kyushu University, Institute for Materials Chemistry and Engineering, Professor	Development of DYASIN: Novel Approach to Enantioenriched Chiral Molecules	FY2019-2024	47,800	152,800

OBroad Section F (6 Projects)

(Thousands of Yen)

Research Project Number	Principal Investigator (Name, Researcher Number, Research Institution)		Title	Term of Project	Annual Budget	
					Budget throughout for the Entire Research Period	
20H05678	MURATA Takahisa 40422365	The University of Tokyo, Graduate School of Agricultural and Life Sciences, Associate Professor	Investigation of intestinal lipid metabolism in food allergy	FY2019-2024	32,500	151,300
20H05679	SENOO Keishi 40206652	The University of Tokyo, Graduate School of Agricultural and Life Sciences, Professor	Studies on nitrogen fixation of iron reducing bacteria as a key process supporting sustainable nitrogen fertility of rice paddy soil : towards low nitrogen agriculture	FY2019-2024	44,000	152,400
20H05680	TSUTSUMI Nobuhiro 00202185	The University of Tokyo, Graduate School of Agricultural and Life Sciences, Professor	Establishment of the basis for plant mitochondrial genome breeding	FY2019-2024	47,900	152,600
20H05681	TERAUCHI Ryohei 50236981	Kyoto University, Graduate School of Agriculture, Professor	Rice NLR genes, their function and evolution	FY2019-2024	59,300	118,900
20H05682	TOMONAGA Keizo 10301920	Kyoto University, Institute for Frontier Life and Medical Sciences, Professor	Genome immunity: elucidation of the antiviral activity of endogenous bornaviruses and their utilization as functional resources	FY2019-2024	31,600	147,200
20H05683	TACHIBANA Hirofumi 70236545	Kyushu University, Graduate School of Bioresource and Bioenvironmental Sciences, Professor	Integrated understanding of food functional responsible factors and their functional interactions	FY2019-2024	32,700	148,800

OBroad Section G (6 Projects)

(Thousands of Yen)

Research Project Number	Principal Investigator (Name, Researcher Number, Research Institution)		Title	Term of Project	Annual Budget
					Budget throughout for the Entire Research Period
20H05684	KYOZUKA Junko 90273838	Tohoku University, Graduate School of Sciences, Professor	The prototype, and evolution, of the system which adapt plant growth to its environment through the signaling molecule, strigolactone.	FY2019-2024	34,300
					151,400
20H05685	KASAI Haruo 60224375	The University of Tokyo, Graduate School of Medicine, Professor	From the structure-function relationship of dendritic spines to synaptic mechanobiology	FY2019-2024	24,800
					150,700
20H05686	SHIRAHIGE Katsuhiko 90273854	The University of Tokyo, Institute for Quantitative Biosciences, Professor	Regulation of Enhanceosome by Cohesin	FY2019-2024	36,600
					151,800
20H05687	KINOSHITA Toshinori 50271101	Nagoya University, Institute of Transformative Bio-Molecules [WPI-ITbM], Professor	Analysis of signal transduction of stomatal movements and regulation of plant growth	FY2019-2024	39,800
					143,800
20H05688	NAKAJIMA Kazunori 90280734	Keio University, School of Medicine, Professor	Mechanisms of corticogenesis in the developing brain	FY2019-2024	32,500
					151,300
20H05689	ENDO Toshiya 70152014	Kyoto Sangyo University, Faculty of Life Sciences, Professor	Molecular basis of the protein trafficking system for mitochondrial biogenesis and functional maintenance	FY2019-2024	32,500
					151,300
20H05690	SEKINE Shun-ichi 50321774	RIKEN, Center for Biosystems Dynamics Research, Team Leader	Structural basis of higher-order complexes connecting transcription and its related functions	FY2019-2024	33,700
					145,500

OBroad Section H (3 Projects)

(Thousands of Yen)

Research Project Number	Principal Investigator (Name, Researcher Number, Research Institution)		Title	Term of Project	Annual Budget
					Budget throughout for the Entire Research Period
20H05691	MURAKAMI Makoto 60276607	The University of Tokyo, Graduate School of Medicine, Professor	Regulatory roles of bioactive lipids driven by the phospholipase A2 family	FY2019-2024	32,500
					151,300
20H05692	KAWAGUCHI Yasushi 60292984	The University of Tokyo, The Institute of Medical Science, Professor	Integrated molecular basis for herpesvirus replication and pathogenesis	FY2019-2024	40,700
					152,100
20H05693	AKIRA Shizuo 50192919	Osaka University, Immunology Frontier Research Center, Specially Appointed Professor	Comprehensive understanding of Regnase-1-mediated mRNA surveillance system	FY2019-2024	44,700
					152,400

OBroad Section I (7 Projects)

(Thousands of Yen)

Research Project Number	Principal Investigator (Name, Researcher Number, Research Institution)		Title	Term of Project	Annual Budget
					Budget throughout for the Entire Research Period
20H05694	KATAGIRI Hideki 00344664	Tohoku University, Graduate School of Medicine, Professor	Elucidation of mechanisms underlying glucose homeostasis mediated by inter-organ communication and development of diabetes therapies.	FY2019-2024	20,300
					150,400
20H05695	NAKAUCHI Hiromitsu 40175485	The University of Tokyo, The Institute of Medical Science, Project Professor	Analysis of stemness, aging and carcinogenesis using hematopoietic stem cell ex vivo amplification system	FY2019-2024	48,100
					152,600
20H05696	ASAHARA Hiroshi 70294460	Tokyo Medical and Dental University, Graduate School of Medical and Dental Sciences, Professor	Elucidation of the molecular mechanism of tendon and ligament homeostasis	FY2019-2024	29,400
					145,000

(Thousands of Yen)

Research Project Number	Principal Investigator (Name, Researcher Number, Research Institution)		Title	Term of Project	Annual Budget
					Budget throughout for the Entire Research Period
20H05697	KABASHIMA Kenji 362484	Kyoto University, Graduate School of Medicine, Professor	Understanding the mechanism of the cutaneous immune-diversity and its relationship with other organs	FY2019-2024	28,500
					151,000
20H05698	TAKAKURA Nobuyuki 80291954	Osaka University, Research Institute for Microbial Diseases, Professor	Analysis of the malignant progression of tumors affected by tumor angiogenesis	FY2019-2024	32,500
					151,300
20H05699	MAEDA Takahiro 00791972	Kyushu University, Graduate School of Medical Science, Professor	Development of novel therapeutic strategies for therapy-refractory leukemia	FY2019-2024	32,500
					151,300
20H05700	SAWAMOTO Kazunobu 90282350	Nagoya City University, Graduate School of Medical Sciences, Professor	Neurogenesis and its pathogenesis in the neonatal brain: an integrated understanding using advanced analytical techniques	FY2019-2024	23,000
					119,900

○Broad Section J (4 Projects)

(Thousands of Yen)

Research Project Number	Principal Investigator (Name, Researcher Number, Research Institution)		Title	Term of Project	Annual Budget
					Budget throughout for the Entire Research Period
20H05701	NOMURA M Shin-ichi 50372446	Tohoku University, Graduate school of Engineering, Associate Professor	AutoMatter: Toward creation and expansion of programmable micro-active matter	FY2019-2024	19,500
					150,300
20H05702	YAMAMOTO Hirotsugu 00284315	Utsunomiya University, School of Engineering, Professor	Compact aerial display by use of multiple reflections and its applications for aquatic CAVE for VR Biology	FY2019-2024	27,400
					144,900
20H05703	KOBAYASHI Naoki 00262155	The University of Tokyo, Graduate School of Information Science and Technology, Professor	Program Verification Techniques for the AI Era	FY2019-2024	25,200
					146,400
20H05704	ISHIKAWA Masatoshi 40212857	The University of Tokyo, Information Technology Center, Project Professor	Development of Next Generation Information Environment Systems Using High-speed Vision and Tracking Technology	FY2019-2024	16,400
					144,900
20H05705	KAMITANI Yukiyasu 50418513	Kyoto University, School of Informatics, Professor	Visualizing neural representation of mental imagery	FY2019-2024	32,500
					151,300
20H05706	MATSUMOTO Kenichi 70219492	Nara Institute of Science and Technology, Graduate School of Science and Technology, Professor	Fundamental and Innovative Technologies for Next-Generation Software Ecosystems	FY2019-2024	29,700
					145,400

○Broad Section K (3 Projects)

(Thousands of Yen)

Research Project Number	Principal Investigator (Name, Researcher Number, Research Institution)		Title	Term of Project	Annual Budget
					Budget throughout for the Entire Research Period
20H05707	OHSHIMA Keiichiro 30185251	Hokkaido University, Institute of Low Temperature Science, Professor	Global redistribution of heat, salt and materials induced by sea-ice processes	FY2019-2024	37,700
					151,700
20H05708	YOSHIOKA Toshiaki 30241532	Tohoku University, Graduate School of Environmental Studies, Professor	Systematization of Halogen Control Technologies toward Environmental Impact Reduction	FY2019-2024	57,400
					153,700