

Application Procedures for Grants-in-Aid for Scientific Research-KAKENHI-

FY2025

Research Activity Start-up

This English version is provided for convenience of prospective KAKENHI applicants who

experience difficulty in reading the Japanese original, which should be referred to, in case of dispute.

March 1, 2025

Japan Society for the Promotion of Science (https://www.jsps.go.jp/)

Introduction

This document describes the procedures and other matters relevant to the "Call for Proposals for the Grants-in-Aid for Scientific Research -KAKENHI- for FY2025" including the "Research Activity Start up".

The contents are:

- I Outline of the Grants-in-Aid for Scientific Research-KAKENHI-
- **II** Call for Proposals
- **III** Instructions for Prospective Applicants
- **IV** Instructions for Administrative Staff of Research Institution
- V Other Relevant Issues

"II Call for Proposals" provides for the Research Category, such basic issues as the subjects in the research category to be called, the range of envisaged total budget, a project period, etc. The schedule from the call for proposals, through the proposal submission and the review, to the grant delivery is also described.

The subsequent sections, "III Instructions for Prospective Applicants", and "IV Instructions for Administrative Staff of Research Institution" describe conditions for application, required procedures, and other matters, to be followed by the respective actors.

This Call for Proposals is announced prior to the finalization of the national budget for FY2025, so as to let prospective applicants proceed with an early preparation for the review and enable to commence their research activities as soon as possible. It is therefore, to be reminded that, depending on the situation of the national budget enactment, details on the grant allocation and other matters may be subject to change at a later stage.

The major changes in the FY2025 Call for Proposals are listed on the following pages.

Explanation of Important Matters

• Grants-in-Aid for Scientific Research is a competitive research funding intended to provide financial support for creative and pioneering research conducted by individual researchers. Therefore, the contents of the Research Proposal Document must be original planned by the applicant.

Plagiarism and/or misappropriation of the research contents of others are strictly impermissible. Applicants must comply with research ethics. Please note that the use of generative AI in the preparation of the Research Proposal Document causes the risk of inadvertent infringement of copyright and leakage of personal information and confidential information. It is the responsibility of the individual researcher to make appropriate decisions about the usage of generative AI.

- The research using the KAKENHI fund should be carried out by the researcher(s)' own initiative and responsibility. Therefore, the implementation of a KAKENHI research project and publication of the research results are solely attributed to the researchers' responsibility and view, and do not reflect that of the funding sector nor of the government.
- To ensure the quality of scientific knowledge and to gain trust of society on scientists and scientific communities, it is essential to exercise fair and conscientious research activities with the adherence to the code of conduct for scientists. Applicants must understand and practice the contents of both the Statement "Code of Conduct for Scientists -Revised Version-" (section I. "Responsibilities of Scientists") by the Science Council of Japan and the booklet "For the Sound Development of Science The Attitude of a Conscientious Scientist -" (especially section I "What Is a Responsible Research Activity?") issued by the Japan Society for the Promotion of Science (JSPS).

• From the perspective of enhancing the quality of research activities among the international scientific research networks, researchers are

urged to disseminate their research results aggressively to the international society by publication of scientific papers in international journals, co-authoring of international papers, presentations in international conferences, etc.

< Major Changes in the Call Proposals for Fiscal Year 2025>

(1) Research Integrity

OIn line with the "Policy on Measures to Ensure Research Integrity" (April 27, 2021, Decision of Council for Integrated Innovation Strategy), etc., JSPS has taken necessary measures to ensure the transparency of research activities. Starting from the FY2025 call for proposals, research integrity information registered in e-Rad will be linked to the KAKENHI electronic application system, and you will be requested to enter the necessary information in your Research Proposal Document based on the e-Rad registered research integrity details.

Please note, in particular, that you cannot make application if the Principal Investigator and/or Co-Investigators have not registered the status of pledge regarding their research integrity information for their affiliated institution. Therefore, please make sure to confirm the registration status of the relevant information in advance. (Refer to III. Instructions for Prospective Applicants 1. Procedures to Be Completed Prior to the Application, (2) and IV. Instructions for Administrative Staff of Research Institution 3. Issues that Need to Be Verified When Compiling the Application Forms (Preparing the Research Proposal Document), (2).

(2) Development of Security Export Control Systems

OResearchers who conduct KAKENHI-funded research activities and plan to export (provide) technologies restricted under the Foreign Exchange and Foreign Trade Act (Act No. 228 of 1949) are required to fully confirm security export control systems, response measures, and other matters, in accordance with the said Act and the rules and regulations of their affiliated research institution.

Starting from research projects to be funded in FY2025, JSPS will, by the time of official grant decision, confirm whether the provision of goods and technologies subject to export controls under the Foreign Exchange and Foreign Trade Act is planned in the relevant research projects and, if there is an intent to provide them, whether the research institution has developed a control system.

In the case that the provision is planned, it is necessary to establish a control system. Therefore, research institutions must develop a system necessary to

properly conduct the relevant affairs and make sure to register the status of establishment in e-Rad. (Refer to IV. Instructions for Administrative Staff of Research Institution 2. Issues to Be Completed Beforehand by the "Research Institution" (11) and V. Other Relevant Issues 7. Security Export Control Policy (Coping with Technology Leakage Overseas)

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References

The application forms (Research Proposal Document) and other application materials are contained in separate files. Please refer to "Supplementary edition to the Application Procedures for Grants-in-Aid for Scientific Research -KAKENHI- for FY2025; (Research Activity Start-up) (Forms / Procedures for Preparing and Entering a Research Proposal Document)".

* The application forms (Research Proposal Document) and other application materials can be downloaded from the JSPS website (cf. URL below).

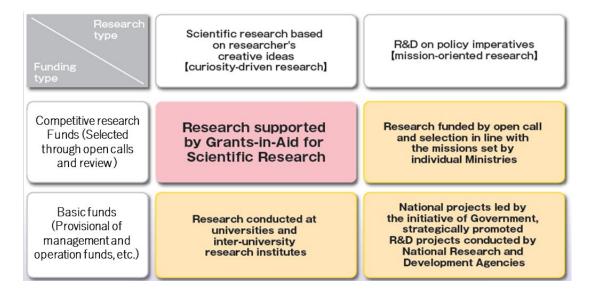
URL: https://www.jsps.go.jp/j-grantsinaid/22_startup_support/download.html

I. Outline of the Grants-in-Aid for Scientific Research -KAKENHI-

1. Purpose and Character of Grants-in-Aid for Scientific Research -KAKENHI-

Grants-in-Aid for Scientific Research (hereinafter referred to as "KAKENHI") are competitive research funds that are intended to promote development of scientific research (based on original ideas of researchers), encompassing basic to applied researches in all fields ranging from humanities and social sciences to natural sciences. The grants provide financial support for creative and pioneering research projects that will become the foundation of social development. The research projects are selected by peer-review process.

<The placement of "KAKENHI" in the policy on the promotion of science, technology and scientific research in Japan>



2. Research Categories

Different research categories of KAKENHI listed below are provided so as to meet the variety of the research content and budget scale.

*	As	of	March	2025
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Research categories	Purposes and description of each research category	Type of	fund*1
Grants-in-Aid for cientific Research			
Grant-in-Aid for Specially Promoted Research	Outstanding and distinctive research conducted by one or a relatively small number of researchers expected to achieve remarkably excellent research results that opens up a new scientific field. The research period is 3 to 5 years. (In a truly necessary case, period up to 7 years is acceptable.) The budget ranges from 200 million to 500 million yen per project (Only in a truly necessary case, budget exceeding 500 million yen is asked for.).	ts that opens o to 7 years is r project (Only	
Grant-in-Aid for Transformative Research Area	 (A) Research areas proposed through co-creative and interdisciplinary efforts of diverse researchers, which aim to create research areas that will lead the way to radical transformation of and change in the existing framework and/or direction of research as well as upgrade and level-up of scientific research in Japan and nurturing young researchers, and will contribute to the development of the proposed research areas through efforts for joint research and shared use of equipment, etc. (5 years; more than 50 million yen and up to 300 million yen per fiscal year per research area (In a truly necessary case, a budget exceeding 300 million yen may be requested.)) (B) Research areas proposed by compact groups of researchers who will be bearers of the next generation of research areas that will lead the way to radical transformation of and change in the existing framework and/or direction of research as well as upgrade and level-up of scientific research in Japan through more challenging and exploratory research, and expected to lead to the Transformative Research areas (A) in the future. (3 years; 50 million yen or less per fiscal year per research area) 	s	G
Grant-in-Aid for Scientific Research	 (S): Creative/pioneering research conducted by one or a relatively small number of researchers. 5 years (in principle) 50 million to 200 million yen (A), (B), (C): Creative/pioneering research conducted by one researcher or jointly by multiple researchers. (A) 3 to 5 years; 20 million to 50 million yen (B) 3 to 5 years; 5 million to 20 million yen (C) 3 to 5 years; 5 million yen or less 		SG
			MF
		(C)	
Grant-in-Aid for Challenging Research (Pioneering/Exploratory)	Research conducted by a single or multiple researchers that aims at radically transforming the existing research framework and/or changing the research direction and has a potential of rapid development. The scope of the (Exploratory) category encompasses research proposals that are highly exploratory and/or are in their budding stages. (Pioneering) 3 to 6 years; 5 million to 20 million yen (Exploratory) 2 to 3 years; 5 million yen or less	MF	
Grant-in-Aid for Early-Career Scientists	Research conducted by an individual researcher (*2) who is less than 8 years after Ph.D. acquisition. 2 to 5 years; 5 million yen or less	MF	
Grant-in-Aid for Research Activity Start-up	Research conducted by a single researcher who has been newly hired by a research institution, or who has returned from his/her childcare leave, etc. or from the nursing of his/her preschool child(ren). 1 to 2 years; 3 million yen or less (1.5 million yen or less if the research period is 1 year.)	MF	

Grant-in-Aid for Encouragement of Scientists	Research conducted by an individual who is ineligible for application for other KAKENHI categories (e.g., individuals who belong to educational or research institutions, private companies, etc. and engage in the researches to contribute to the promotion of the science). 1 year; 100 thousand to 1 million yen	SG
Grant-in-Aid for Special Purposes	Research projects of pressing urgency and importance.	MF
Grant-in-Aid for Publication	on of Scientific Research Results	
Publication of Research Results	Subsidy for publication and/or international dissemination of research achievements of high academic values executed by academic associations and other organizations.	
Enhancement of International Dissemination of Information	Subsidy for efforts by academic societies and other scholarly organizations to strengthen international dissemination of academic information for the purpose of international academic exchange.	SG
Scientific Literature	Subsidy for academic publication of research results (books) authored by an individual or a group of researchers.	
Databases	Subsidy for creation and operation of a database open to public use by an individual or a group of researchers.	
Grant-in-Aid for JSPS Fellows	Funding period is up to 3 years for research conducted by JSPS Fellows (including Foreign JSPS Fellows).	MF
Fund for the Promotion of	Joint International Research	
International Leading Research	This grant aims to enable research groups led by top-level researchers in our country to play a central role in the international network, thereby achieving research results of high scientific value internationally. With the participation of postdoctoral fellows and graduate students, the grant seeks to foster researchers who can play leading roles in the international research community in the future. (7 years (extendable up to 10 years); up to 500 million yen)	
Fostering Joint International Research	Support of joint international research project conducted by a KAKENHI grantee in collaboration with researcher(s) at a foreign university or a research institution over a period of 6 to 12 months. The grant seeks to markedly advance research plans for the root research project and to foster independent researchers who can be internationally competitive. (The budget is up to 12 million yen.) [The category name will be changed from the FY2023 call for proposals.]	MF
Home-Returning Researcher Development Research	Support of research to be conducted by a Japanese researcher with current affiliation abroad who is to be newly appointed at university or research institution in Japan. (The period is up to 3 years. The budget is up to 50 million yen.)	

*1 SG: Series of Single-year Grants, MF: Multi-year Fund
*2 Including those who are expected to acquire their Ph.D. and those deemed less than eight years after the acquisition of their Ph.D. by exempting the period of maternity leave or the period of raising preschooler(s) following their Ph.D. acquisition.

3. Role Sharing between MEXT and JSPS

Up to FY 1998, all aspects of KAKENHI funding were handled by the Ministry of Education (the predecessor of MEXT). From FY1999 on, these tasks have been gradually transferred to JSPS. The current role-sharing between MEXT and JSPS is as shown below.

	Call for proposals, Review	Grant delivery
Research category	Preparation of the document(s) for procedures, Reception of proposal submission	Notifications of unofficial decision Reception of the application form (after unofficial decision) and other documents for the relevant procedures. Notification of grant decision
Scientific Research on Innovative Areas,		
Transformative Research Areas,	MEXT	JSPS
Special Purposes,		
Specially Promoted Research,		
Scientific Research,		
Challenging Research,		
Early-Career Scientists,		
Research Activity Start-up,		
Encouragement of Scientists,		
Publication of Scientific Research Results,	JSPS	JSPS
JSPS Research Fellow,	0010	0010
Fund for the Promotion of Joint International		
Research (International Leading Research		
,Fostering Joint International Research,		
International Collaborative		
Research, Home-Returning Researcher		
Development Research)		

4. Rules Pertaining to KAKENHI

<u>KAKENHI (Series of Single-year Grants)</u> are governed by the "Law on Optimizing Implementation of Budgets Relating to Subsidies" (Law No. 179, 1955), the "Procedures on the Handling of Grants-in-Aid for Scientific Research" (Public Notice of MEXT), the "Procedures on the Handling of JSPS Grants-in-Aid for Scientific Research" (KAKENHI (Series of Single-year Grants)) (Regulations No. 17, 2003), and other rules.

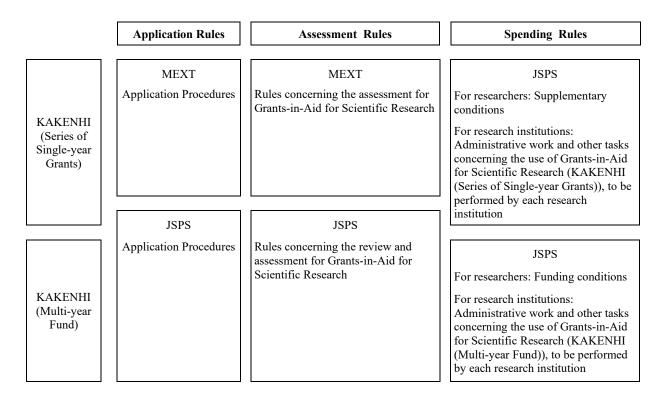
<u>KAKENHI (Multi-year Fund)</u> are governed by the application with modifications of the "Law on Optimizing Implementation of Budgets Relating to Subsidies" (Law No. 179, 1955) and the application of the "Basic Policy on the Management of the KAKENHI (Multi-year Fund) (Decision by the Minister of Education, Culture, Sports, Science and Technology)", the "Procedures on the Handling of JSPS Grants-in-Aid for Scientific Research (KAKENHI (Multi-year Fund))" (Rule No. 19, 2011) and other rules.

(1) Three types of rules pertaining to KAKENHI

The following three sets of rules pertain to various aspects of KAKENHI.

- i) Application Rules: rules concerning the submission of research proposals
- ii) Assessment Rules: rules concerning the pre-assessment (review) of applications, and rules concerning the interim, and other progress assessment of granted projects.
- iii)Spending Rules: rules concerning the use of KAKENHI

These three sets of rules apply as follows.



(2) Appropriate use of KAKENHI

KAKENHI are funded by the tax of citizens and other sources, so please ensure that the KAKENHI is used efficiently and effectively, for example through planning for the communal use of purchased items.

Researchers receiving the KAKENHI have a duty to comply with the related laws, regulations and spending rules by researchers (supplementary conditions or funding conditions), and also to use such grants appropriately. To facilitate the appropriate use of KAKENHI, research institutions to which the researchers belong are responsible for the management of KAKENHI. The Administrative work that each research institution is required to carry out (rules for use for institutions) is determined by JSPS. The research institutions are responsible for the appropriate accounting of KAKENHI. It is desirable, for example, to set up an accounting system for proper management of KAKENHI budget and expenditure, purchase order and delivery inspection, and internal auditing. <u>To prevent improper business transactions, it is important, in addition to</u> <u>appropriate delivery inspections, to make all traders thoroughly informed of the KAKENHI rules</u> <u>and thus obtain cooperation of traders in the prevention of this kind of fraudulent accounting.</u> <u>Research institutions should take rigorous measures so as to eliminate business malpractice.</u> KAKENHI applicants and their research institutions must have full understanding of the KAKENHI rules prior to the submission of their research proposals.

(3) The Distinction between KAKENHI (Series of Single-year Grants) and KAKENHI (Multi-year Fund)

<u>A research project submitted to the categories of KAKENHI (Series of Single-year Grants), if</u> <u>adopted</u>, is granted as a package plan for the multi-year research period. The actual funding, however, is made on the single-year basis for each fiscal year of the research period. Therefore, this type of KAKENHI cannot be used to cover the expenditures in fiscal years other than the respective grant year.

When it is anticipated that spending of the grant cannot be completed within the fiscal year, owing to reason(s) unforeseeable at the time of grant delivery, the grant can be carried over to the next fiscal year after going through the due procedure. Firstly, a Principal Investigator submits an application for carry-forward of grant through his/her affiliated research institution to JSPS. After reviewing it by JSPS and MEXT, the Minister of MEXT makes a request to the Minister of Finance for the carry-forward of grant to obtain his/her approval.

<u>On the other hand, the KAKENHI (Multi-year Fund) is</u> handled as single funding for the whole research period. Therefore, it is possible to use the grant to cover the expenditures extending over fiscal year boundaries.

Moreover, if an amount of grant remains unused by the end of a fiscal year, it can be carried over to the successive fiscal year(s) as long as they are within the overall research period, without going through prior authorization procedures. In case such a grant carry-over becomes necessary in the final year of the research period, the grantee may choose to request an official approval of one-year extension of the research period.

(4) Penalty for Non-submission of "Report on the Research Achievements"

 The "Report on the Research Achievements" plays the important role in making the achievements of the research funded by the KAKENHI widely known to the public, and thereby returning the outcome of KAKENHI supported by citizens' tax, to the society. The contents of the "Report on the Research Achievements" submitted by KAKENHI grantees are compiled and made available to the public on the "Grants-in-Aid for Scientific Research Database" (KAKEN) of the National Institute of Informatics and other platforms. "Report on the Research Achievements" should be submitted via the research institution to which the KAKENHI grantees belong.

2) No KAKENHI grant will be awarded to a researcher who failed to submit the "Report on the Research Achievements" at the end of his/her research period without any justifiable reason. If such a non-compliance case is uncovered, the decision of grant award to the researcher in question may be cancelled, the on-going grant may be suspended, and return of the delivered grant may be ordered. In addition, relevant information, such as the name of the research institution to which the researcher in question belongs, may be made public. Furthermore, if researchers have failed to submit the scheduled report on the research achievements without justified reason, then execution of other KAKENHI implemented in the same fiscal year will be suspended. Therefore, it is the responsibility of the representative of the research institution to ensure that the report on the research achievements is submitted without fail.

(5) Penalty for the Case of Infringement of Related Laws and Regulations

If there have been serious falsehoods in the application documents, or violation of relevant laws, regulations and guidelines, the delivery of KAKENHI may be suspended or cancelled.

5. "Guidelines on the Proper Implementation of Competitive Research Funds", etc.

The "Guidelines on the Proper Implementation of Competitive Research Funds" (Agreement of the Liaison Meeting of Related Offices and Ministries on Competitive Research Funds, September 9, 2005; revised December 17, 2021) states common understandings among the research-related ministries and offices in regard to allocation of competitive research funds, in terms of elimination of such inappropriate practices as unreasonable duplication and/or excessive overconcentration in the grant allocation, fraudulent acquisition and/or unlawful use of grants, and misconducts in research funds scheme follows the above-mentioned "Guidelines" and other related rules. Applicants are urged to take special notice of the following points.

(1) Elimination of Unreasonable Duplication and/or Excessive Overconcentration in the Grant Allocation

 Towards elimination of "Unreasonable Duplication and/or Excessive Overconcentration" of competitive research funds, relevant information on funding applications are shared among the pertinent ministries and funding agencies, making use of the Cross-ministerial Research and Development management system (e-Rad).

Therefore, applicants, when submitting more than one KAKENHI applications and/or other competitive research funds, are urged to prepare their application documents with due care to clearly state the differences between the project to be submitted and their other projects so as to make it clear that they do not constitute unreasonable duplication.

In case a particular KAKENHI application is recognized as constituting a case of unreasonable duplication and/or excessive overconcentration, that application may not be granted.

- 2) Applicants are urged to state in the Research Proposal Document the status of applications and acquisitions of other competitive research funds (including those of other ministries) and other research grants (such as name of research grant, title of research project, research period, amount of budget, effort, etc.) as well as the information on all affiliated institutions and positions (such as side jobs, participation in a foreign recruitment program, position of professor emeritus without employment contract, etc.). Untruthful statement or misrepresentation may result in rejection of the research project, cancellation of grant, or reduction of the research budget.
- 3) Applicants are required to make a pledge that they have appropriately reported to their affiliated research institutions the information necessary to ensure the transparency of all research activities that they are involved in, including information on research funds and side jobs, etc., as well as information on donations and information on supports other than monetary funds, for example, through the provision of facilities and/or equipment. The status of pledge will be confirmed with e-Rad registration details. Please note that applicants cannot make applications if they have not made a pledge. If it is found that applicants have not appropriately made reports contrary to their pledge, it may result in rejection of the research project, cancellation of grant, or reduction of the research budget.
- 4) Inquiries on the status of acceptance of facilities and/or equipment used for the research, the status of management of such facilities/equipment, and request for other information may be made to researchers, etc.

Elimination of Unreasonable Duplication and Excessive Overconcentration in Grant Allocation

"Guidelines on the Proper Implementation of Competitive Research Funds" -Extract-(Agreement of the Liaison Meeting of Related Offices and Ministries on Competitive Research Funds, September 9, 2005; revised December 17, 2021) 2. Elimination of Unreasonable Duplication and/or Excessive Overconcentration in the Grant Allocation (1) Basic Policy of the Unreasonable Reduplication and Excessive Overconcentration i) In the "Guidelines", "Unreasonable Duplication" refers to a situation in which more than one competitive research funds are unnecessarily and duplicative allotted to one and the same research project by one and the same researcher. Either of the following cases falls under "Unreasonable Duplication". •Cases where simultaneous applications have been made to more than one competitive research funds for substantially the same research project, and where these research projects are redundantly adopted. •Cases where an application has been made again for substantively the same research project as another project that has already been adopted, and for which the allotment of competitive research funds has already been completed. •Cases where there is duplication in the use of research funds among more than one research projects. Other cases corresponding to those above. ii) In these guidelines, "Excessive Concentration" is a situation in which the entire research funds that are allotted to one and the same researcher or research group (hereinafter referred to as "researcher, etc.") in the fiscal year in question exceeds the limit within which they can be used effectively and efficiently, and in which the research funds cannot be used within the research period. Either of the following cases falls under "Excessive Concentration." •Cases where, in the light of the abilities of the researcher, etc. and the research methods, etc., excessive research funds are allotted. •Cases where, in comparison with the effort (the time allocation rate (%) of time necessary for the implementation of the research activities with the entire working time of researcher) that is being allotted to the research project in question, excessive

- research funds are allotted. •Cases where the purchase of unnecessarily expensive equipment is carried out.
- •Other cases corresponding to the cases mentioned above.

(2) Dealing with "Improper Grant Spending", "Fraudulent Grant Acquisition" or

"Research Misconduct"

- "Improper Grant Spending", "Fraudulent Grant Acquisition" and "Research Misconduct" refer to the following type of acts respectively.
 - "Improper Grant Spending":

Use of competitive research funds for other purposes, intentionally or by gross negligence, for example, by conducting fictitious business transactions ("*azukekin*") with a trader through fictitious order placements, or by charging costs higher than actually needed for personnel, travel expenses, etc., or use of competitive research funds in violation of the content of the funding decision or the conditions it implies

• "Fraudulent Grant Acquisition":

Receiving competitive research funds by deception or other fraudulent means, for example, by applying under the name of another researcher, or by making false entries in application documents

• "Research Misconduct":

Fabrication, Falsification, or Plagiarism of data, information, or findings published research achievements based on the intent of the researcher, or the failing of the researcher to fulfill the basic duty of care that he/she has.

- 1) No KAKENHI will be offered, for a fixed period of time, when a researcher or related party has committed an improper grant spending of KAKENHI, has committed a fraudulent grant acquisition of KAKENHI, or has committed a research misconduct. Moreover, for research projects for which it is established that an improper grant spending of grants, a fraudulent grant acquisition of grants or research misconduct has been committed, the researcher in question may be required to return the given KAKENHI completely or partially. Moreover, an outline of the improper grant spending of KAKENHI, the fraudulent grant acquisition of KAKENHI, and/or the research misconduct in question of the researcher who falls in those categories (containing an outline of the outcome of the investigation in the research institution, the names of the people involved, the name of the system, the institution they belong to, the research project, the budget, the fiscal year of the research, the fraudulent content, details of the measures taken, etc.) will be made public. Also researchers who have committed improper grant spending or fraudulent grant acquisition of competitive research funds other than the KAKENHI (including funds under the jurisdiction of other Offices and Ministries), etc., and/or has committed research misconduct by means of these competitive research funds, and therefore are excluded from receiving these funds in question, for a certain period of time, will not receive the KAKENHI for the fixed period of time.
 - Note: This applies to those schemes newly starting a call for proposals in FY2025 (and onward) for competitive research funds other than KAKENHI, etc. (including funds under the jurisdiction of other Offices and Ministries)" as well. It also applies to those schemes that ended before FY2024. Refer to the website below for the schemes to which this specifically applies at present. URL: https://www8.cao.go.jp/cstp/compefund/

<Period of KAKENHI suspension>

Improper Grant Spending and Fraudulent Grant Acquisition of KAKENHI

	Researcher categories	Extent of the improper grant spending	Period of KAKENHI suspension
I.	Researchers who committed improper grant spending of KAKENHI and researchers who conspired in such acts	1. Misappropriation of KAKENHI for personal gain	10 years

Researcher categories	Extent of the improper grant spending		Period of KAKENHI suspension
II. Researchers who committed		(i) Cases of major seriousness and maliciousness	5 years
improper grant spending of KAKENHI and researchers	2. Other than 1.	(ii) Cases other than (i) and (iii)	2 to 4 years
who conspired in such acts		(iii) Cases of minor seriousness and maliciousness	1 year
III. Researchers who acquired KAKENHI by deception or other fraudulent means and researchers who conspired in such acts	_		5 years
IV. Researchers who were not directly involved in the improper grant spending of KAKENHI, but failed to exercise due care and used the funds as a result	_		The upper limit is 2 years and the lower limit is 1 year depending on the degree of the breach of duty by the researchers who have the duty of care as a good manager.

The following cases are pertinent to the "sharp reprimand" penalty.

- 1. Among the case II above, the researchers in case that the influence on society and the maliciousness of their conducts are judged to be insignificant and the amount of money involved is small.
- 2. Among the case IV above, the researchers in case that the influence on society and the maliciousness of their conducts are judged to be insignificant.

Research Misconduct

Individual Involvement in the Misconducts		lvement in the Misconducts	Negative Impacts on Science and on Public at Large Degree of Maliciousness	Period of KAKENHI Suspension
(a) Particularly malicious individual(s) who, for exa very beginning of the research			ample, had intention of research misconduct from the	10 years
(b) Author(s		Responsible author(s) of the paper(s) in question (corresponding author, lead	Cases where it is judged that the impact on the progress of the science in the field in question and the social impact are major, or the level of maliciousness involved in the acts is high	5 to 7 years
t of Researc	research in which research misconduct	author or other authors bearing equivalent responsibilities)	Cases where it is judged that the impact on the progress of the science in the field in question and the social impact are minor, or the level of maliciousness involved in the acts is low	3 to 5 years
Subject of Research Misconduct	(s) have been identified (other than (a) above) Author(s) of the paper(s) in question other than the responsible author(s) described above		2 to 3 years	
Ē	authors of the	s) involved who are not the e research paper(s) for which conduct(s) are identified.		2 to 3 years
Responsible author(s) of paper(s), (corresponding author, lead author or other authors bearing equivalent responsibilities) for which research misconduct(s) are identified, but not involved in the alleged research misconduct		other authors bearing equivalent	Cases where it is judged that the impact on the progress of the science in the field in question and the social impact are major, or the level of maliciousness involved in the acts is high	2 to 3 years
			Cases where it is judged that the impact on the progress of the science in the field in question and the social impact are low, or the degree of severity of the acts is low	1 to 2 years

- * In cases where specific issues for extenuation such as voluntary withdrawal of the paper in question may be taken into account, the suspension period can be shortened as judged fit.
- 2) The relevant information of each research misconduct case may be provided to the offices of the research funding agencies (including Incorporated Administrative Agencies) under the jurisdiction of the relevant Office. Thereby the penalized researcher may be also subject to restriction in application of and/or participation to research projects in other competitive research funds other than KAKENHI.
 - Note: "Applying and/or participation" means proposing new research projects, applying, responding to call for proposals, newly participating to research as a person involved in collective research, etc. and participating as a Principal Investigator or a person involved in collective research, etc. in research projects in progress (continued research projects).
- 3) Research institutions are required to comply with the "Guidelines on the Management and Audit of Public Research Funds at Research Institutions (Implementation Standards) (revised in February 1, 2021), Ordered by the Minister of Education, Culture, Sports, Science and Technology" and the "Guidelines for Responding to Research Misconduct (adopted August 26, 2014 by MEXT)". Therefore, research institutions should pay adequate attention to these two sets of Guidelines when researchers implement their research activities. In case where the status of the system improvement in line with these guidelines is recognized inadequate based on the survey results, the measures such as the reduction in indirect cost of all kinds of grants disbursed by MEXT or the Independent Administrative Agencies under the control of MEXT to the research institution(s) in question can be taken.
 - Guidelines on the Management and Audit of Public Research Funds at Research Institutions" (Revised February 1, 2021; Ministry of Education, Culture, Sports, Science and Technology)
 URL: https://www.mext.go.jp/a_menu/kansa/houkoku/1343904_21.htm
 - Guidelines for Responding to Research Misconduct" (Established August 26, 2014; Ministry of Education, Culture, Sports, Science and Technology)

URL: https://www.mext.go.jp/a_menu/jinzai/fusei/index.htm

Reference: Examples of improper grant spending, fraudulent grant acquisition and research misconduct of KAKENHI.

O Improper grant spending
• Someone instructed a trader to forge fictitious transaction pretending to have purchased expendables, made
the university pay a KAKENHI for them, and then instructed the trader to keep the money as deposit for
future use.
• Someone instructed a trader to forge a fictitious transaction, obtaining a false invoice which carries item

• Someone instructed a trader to forge a fictitious transaction, obtaining a false invoice which carries item names different from those actually ordered and delivered, and then made the university pay a KAKENHI for them.

Someone instructed his/her students to submit false work attendance sheets, made the university pay a

- KAKENHI for them, and then kept the money as a pooled fund of his/her lab.
- Someone visited destination not listed on the oversea travel itinerary, in order to have a meeting on cooperative research unrelated to the purpose of the KAKENHI research project.
 - (Note) The expenditure of the KAKENHI for fictitious and other transactions, like the ones mentioned in the case examples above, are all considered "misappropriation or misuse", even if the expenditure was intended for the purpose of conducting the KAKENHI research project.
- **O** Fraudulent grant acquisition
- A researcher ineligible for the KAKENHI funding made application and acquired a KAKENHI grant.

O Research misconduct

- Someone manipulated or forged experimental data or figures in a research paper published as an achievement of the research supported by the KAKENHI.
- Someone published books of his/her achievement with KAKENHI which contained an article translated from an original English research paper with no prior consent from the author(s) nor proper quotation statement.

6. Dissemination, Etc. of Research Achievements Supported by KAKENHI

KAKENHI research achievements are made available to other researchers and to the general public, through posting of the "Research Outline" and the "Report on the Research Achievements" on the Grants-in-Aid for Scientific Research Database (KAKEN) operated by the National Institute of Informatics.

Moreover, the expenses for outreach-related activities including dissemination of international research achievements by publishing research papers, etc., can be covered by direct expenses. The KAKENHI grantees are urged to actively pursue public promotion of their international research achievements through the aid of KAKENHI so as to make them widely known to the public at large. Upon disseminating the research achievements, please take note of the following issues as well.

(1) The acknowledgement for KAKENHI grant in research publications

When publishing research achievements of a KAKENHI project, researchers should be sure to express that the project has been supported by the KAKENHI grant, by stating in the "Acknowledgment" or other designated section of the paper the "JSPS KAKENHI Grant Number JP8 digits" in the case of English publication or "JSPS 科研費 JP8 桁の課題番号" in the case of Japanese publication.

(Example)

【English】This work was supported by JSPS KAKENHI Grant Number JP12K34567. 【Japan】本研究は JSPS 科研費 JP12K34567 の助成を受けたものです。

(2) The implementation of the fair and conscientious research activities

The research using the KAKENHI should be carried out based on researcher's own self-awareness and responsibility. Therefore, the publication on the implementation of the research or research achievements, etc. should not come from the government request and the views and responsibilities on the research achievements should be attributed to the researchers themselves.

On the occasion such as researchers release the research achievements using the KAKENHI broadly to the public, the examples of the indication noting that the research achievements are based on the personal views are given below.

(Example)

[English] Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s)' and do not necessarily reflect the views of the author(s)' organization, JSPS nor MEXT.

【Japan】本研究の成果は著者自らの見解等に基づくものであり、所属研究機関、資金配 分機関及び国の見解等を反映するものではありません。

(3) Promotion of "Open Access" to the research papers supported by KAKENHI grants

JSPS endorses general policy of promotion of open access of publications of research results funded by public grants including KAKENHI. Note that open access is not mandatory if there are justifiable reasons for deferral such as copyright-related issues, or insufficient repository infrastructure at the research institution.

In addition, with the formulation of the Basic Policy for the Realization of Immediate Open Access to Academic Papers, etc. (February 16, 2024, Decision of Council for Integrated Innovation Strategy) and the Concrete Measures to Implement the "Basic Policy for the Realization of Immediate Open Access to Academic Papers, etc." (February 16, 2024, Decision of Council for Integrated Innovation Strategy) (February 21, 2024, Agreement of Related Offices and Ministries), starting from a new KAKENHI call for proposals in FY2025, the publication of academic papers and supporting data on institutional repositories and other information infrastructure is required immediately after they are published in academic journals. JSPS plans to announce specific measures, etc. in the Application Procedures for Grants-in-Aid for Scientific Research, etc. to be published later.

 Implementation policy on open access of papers, which are supported by research funds by KAKENHI grants of JSPS (March 9, 2017, Decision of JSPS President) URL: <u>https://www.jsps.go.jp/file/storage/general/data/Open_access.pdf</u>

OBasic Policy for the Realization of Immediate Open Access to Academic Papers, etc.(February 16, 2024, Decision of Council for Integrated Innovation Strategy)
 URL: <u>https://www8.cao.go.jp/cstp/oa_240216.pdf</u>

 Concrete Measures to Implement the "Basic Policy for the Realization of Immediate Open Access to Academic Papers, etc." (February 16, 2024, Decision of Council for Integrated Innovation Strategy) (February 21, 2024, Agreement of Related Offices and Ministries)
 URL: <u>https://www8.cao.go.jp/cstp/openscience/r6_0221/hosaku.pdf</u> About "Open Access"

What is "Open Access"

"Open Access" refers to the idea that research papers published in peer-reviewed journals, etc. should be made freely accessible by anyone online.

Different Routes to Open Access.

There are three main ways of open access implementation ((i) to (iii) below).

- (i) A way in which the article published in the conventional subscription fee type academic journal after a certain period (Embargo) (*1) (for example 6 months later) is made open access by opening the final manuscript to an Institutional Repository (*2) established by the research institution to which the author belongs, or by opening the final manuscript to the website, etc. established by the researchers (self-archiving) (*3).
- ii) A way to make the article open access by posting the article on the web established by the research community or public institution.
- iii) A way to make the article open access immediately by paying the publication fee (APC: Article Processing Charge) by the author of the article.

*1: Embargo

The predetermined period from the time of publication of an article in an academic journal to the time of release so that it can be posted on an online open access archiving system (repository).

*2: Institutional Repository

An online archiving system created by university or research institution for storage and dissemination of the intellectual products. Institutional repositories play important roles in the reform of academic information distribution by enabling the researchers register their own articles, such as the transmission of research and education achievements of the research institution, PR for both the research institution and the researcher, guaranteeing the accountability of research and education activities towards society, and the long-term conservation of intellectual products.

*3: Self-archiving

"Self-archiving" refers to online posting of articles published in academic journals, dissertations, or data by those other than the publisher (the researcher or research institution) generally on their institutional repositories.

(4) Management of Research Data

On October 23, 2023, JSPS established and published its policy on the handling of research data. This policy stipulates JSPS's basic principles regarding the storage, management, and publication of research data generated during research activities funded by KAKENHI and other research grants provided by JSPS.

As such, the Principal Investigator of an adopted KAKENHI-funded research project must prepare a Data Management Plan (DMP) based on the data policy and other rules of his/her research institution, including the storage and management of research data generated as results during research activities as well as the publication or non-publication of such data, and conduct research activities while storing, managing, and publishing research data in accordance with the plan. In addition, he/she must add metadata specified by JSPS (*1) to research data that is subject to management in accordance with the DMP, etc.

The plan can be revised in the process of carrying out research activities.

Research institutions are requested to formulate their data policies stipulating such matters as the scope of data managed under and covered by the policies and criteria for publishing and sharing such research data. At the same time, they are asked to create an environment, develop a support system, and take other measures, so that researchers can conduct research data management based on data policies.

(Reference) Addition of metadata

Metadata specified by JSPS refers to common metadata items specified in the Basic Policies on the Management and Utilization of Research Data Created by Publicly-Funded Research Activities (April 27, 2021, Decision of Council for Integrated Innovation Strategy) and other metadata items additionally specified by JSPS, based on its discussions on the purpose, scope, etc. of each grant. You can register metadata on (the public platform of) the NII Research Data Cloud research data infrastructure system (*2), and search for registered metadata (of research data that has been made public) on the CiNii Research search platform of the said system.

You can also register metadata on other interoperable platforms that enable metadata search (including institutional repositories other than JAIRO Cloud (*3), a leading institutional repository, databases that obtain DOIs via JaLC (*4), and sectoral databases linked to CiNii Research (*5)). Please consult with a person in charge of metadata registration at the affiliated institution.

(Reference) Supplementary terminology notes

- (*1) Metadata refers to information on the nature of the very data for publication, including the created date and time, creator, format, and title of data, and is utilized mainly for centralized and efficient management of data.
- (*2) The research data infrastructure system (NII Research Data Cloud) refers to a system positioned as the "core platform for the management and utilization of research data in Japan" in the Basic Policies on the Management and Utilization of Research Data Created by Publicly-Funded Research Activities. The system consists of GakuNin RDM, a management platform to manage research data, JAIRO Cloud, a public platform for the publication of research data, and a search platform for metadata search.
- (*3) JAIRO Cloud is a cloud-based service to provide an institutional repository environment (available for JPCOAR members), jointly operated by the Japan Consortium for Open Access Repository (JPCOAR) and the National Institute of Informatics (NII). JPCOAR operates its community site and user helpdesk, among others, while the NII (*6) is in charge of development.
- (*4) Japan Link Center (JaLC) is an institution with the authority to add digital object identifiers (DOIs) under international standards to academic contents including research papers in electronic form. The institution is jointly operated by the Japan Science and Technology Agency (JST), the National Institute for Materials Science (NIMS), the NII, and the National Diet Library (NDL).
- (*5) CiNii Research is a database service that allows anyone to search for academic information, such as research papers, books and magazines, and doctoral theses. The service is developed and operated by the NII.
- (*6) The NII refers to the National Institute of Informatics, Inter-University Research Institute Corporation Research Organization of Information and Systems.

JSPS plans to ask researchers to report information on published research data that is generated during their KAKENHI-funded projects to JSPS in their Reports on the Results or Reports on the State of Implementation as well as to publish them as research results on the Grants-in-Aid for Scientific Research Database (KAKEN), in accordance with their DMPs.

○The Sixth Science, Technology, and Innovation Basic Plan (Cabinet Decision on March 26, 2021)

URL: https://www8.cao.go.jp/cstp/kihonkeikaku/6honbun.pdf

OBasic Policies on the Management and Utilization of Research Data Created by Publicly-Funded Research Activities (April 27, 2021, Decision of Council for Science, Technology and Innovation)

URL: https://www8.cao.go.jp/cstp/tyousakai/kokusaiopen/sanko1.pdf

- OBasic Policies on the Handling of Research Data of Projects Funded by JSPS Grants (October 23, 2023, Agreement of Related Offices and Ministries)
 - URL: https://www.jsps.go.jp/file/storage/open_science/basic_policy.pdf

II. Call for Proposals

1. Research Categories for Which a Call for Proposals is Organized

Grants-in-Aid for Research Activity Start-up : KAKENHI (Multi-year Fund)

i) Funding target:

A research plan to be conducted by a single researcher who was who has been newly hired by a research institution, or who has returned from his/her maternity leave or from the nursing of his/her preschool child(ren). The research plans should contain excellent concepts that could lead to future research advances if provided grant support for the launch of research activities.

ii) Range of total budget: 3 million yen or less

1.5 million yen or less if the research period is 1 year.

iii) Research period: 1 to 2 years

iv) Important points:

Applicants must satisfy one of the following two requirements, A) or B), besides meeting the application eligibility requirements. (See page 34-40)

- A) An individual who obtains eligibility for KAKENHI application on or after September 19, 2024, and has not submitted an application under the call for proposals for the following research categories (*1) announced by MEXT and JSPS.
- B) An individual who has not submitted an application under the call for proposals for the following research categories (*1) announced by MEXT and JSPS because he/she was on maternity leave or was raising a preschooler (*2) in FY2024.
- (*1) Pertinent FY2025 Grants-in-Aids: "Grant-in-Aid for Specially Promoted Research", "Grant-in-Aid for Transformative Research Areas", "Grant-in-Aid for Scientific Research", "Grant-in-Aid for Challenging Research", and "Grant-in-Aid for Early-Career Scientists".
- (*2) Including the period of childcare leave.

v) Review sections and review methods:

Review sections: "Research Activity Start-up FY2025" Review Section Review methods: Document Review

(See page 85 and 87 for Review Section and page 32 for Review Method)

- **Please refer to Attached Table1 "Grants-in-Aid for Scientific Research-KAKENHI-"Research Activity Start-up FY2025" Review Section Table" for the Review Section and to II. Call for Proposals 3. Review Panels and Other Matters (2) Review Methods and Other Matters for the review method.)
- * Table 2 "Research Activity Start-up FY2025 Review Section Table, Examples of Related Research Content" is provided to assist you in understanding the content of the screening categories. Please check it when necessary. However, it does not exclude proposal of contents other than if applicants' contents are not included the examples.
- Starting from the FY2025 call for proposals, the review method will change from a two-stage document review to a one-stage document review to make adoption/rejection decisions. Please refer to "II. Call for Proposals 3. Review Panels and Other Matters (2) Review Methods and Other Matters."

2. Schedule from Application to Grant Delivery

(1) Procedures that Need to Be Completed Prior to the Deadline for Submission of the

Aplication Documents

Principal Investigator should sufficiently cooperate with the research institution, and should adequately respond to its requests.

The Date and Time	Procedures to be Performed by the Principal Investigator (See "Ⅲ Instructions for Prospective Applicants")	Procedures to be performed by Research Institution (See "IV Instructions for Research Institution Staff")
From March 1 (Sat.), 2025 Start of the Call for Proposals		 [Procedures to be completed, if the need arises] (i) The Research Institution obtains an ID and password for e-Rad from the person in charge of the operation of e-Rad. (This does not apply if the research institution already obtained them.) *The issue of the ID and the Password takes about up to 2 weeks. (ii) Registration of the Researcher Information in e-Rad and other matters.
	1)Preparing the Application the Principal Investigator should access the Electronic Application System using the ID and the e-Rad password which has been provided by the research institution and preparing the application.	 (iii) Research institutions issue an ID and password to the Principal Investigator. (This does not apply if the researcher already obtained an ID and a password.) (iv) <u>Submission of the "Checklist</u> <u>Pertaining to the Current Status"</u> <u>based on the "Guidelines for Responding to Misconduct in Research"</u> <u>Submission of the "Self-Assessment Checklist on the Improvement of the System" based on the "Guidelines on the Management and Audit of Public Research Funds at Research Institution"</u>
	2)Submission (Sending) of the Application Documents The Principal Investigator should submit (send) the application documents to the research institution he/she belongs to, by the deadline set by the research institution.	If the checklist has already been submitted in April 2024 or later through e-Rad, it is not necessary to submit it again. Deadline for submission: <u>May 8 (Thu.)</u> (v) Research institution submits the "Background Description Regarding the Eligibility for Grant-in-Aid for Research Activity Start-up" (hereinafter referred to as "Background Description") to JSPS at any time (Only in case that there are applicants who correspond to it). (Final Deadline for submission:

<u>May 8 (Thu.) 4:30 pm</u>	May 2 (Fri.) 0:00 pm (to be strictly observed) (vi) Submission (Sending) of the Application Documents
<u>Deadline for the Submission</u> ← (to be strictly observed)	

Notes:

1. After the Principal Investigator submit (sends) to the application to the research institution (mentioned in "Procedures to be Performed by the Principal Investigator" (ii), the research institution should submit (send) to JSPS the application documents by the deadline for the submission (mentioned in "Procedures to be Performed by the Research Institution" (vi)).

Next, the Principal Investigator should verify the section "Preparing the Application and Submitting the Application" (See page 47-56), etc. as well as verify the procedures designated by the research institution, etc. (deadline for the submission of the application, etc., in the research institution) with the administrative staff in charge in the research institution.

- 2. When a researcher is applying for KAKENHI, he/she should register the researcher information beforehand in e-Rad. The research institution should perform the registration in e-Rad. Therefore, the researcher who is planning to apply should verify the state of the registration with the administrative staff in charge in the research institution.
- 3. If the researcher satisfies Condition B), the Background Description must be submitted to JSPS before applying (mentioned in "Procedures to be Performed by the Research Institution" (v)). The Background Description must be prepared and submitted by the research institution, so researchers planning to apply should promptly offer to their intention to the research institution.
- 4. The research institution should submit a "Self-assessment Checklist on the Improvement of the System", based on the "Guidelines on the Management and Audit of Public Research Funds at Research Institutions (Implementation Standards)" and a "Checklist Pertaining to the Current Status" based on "Guidelines for Responding to Misconduct in Research" (mentioned in "Procedures to be Performed by the Research Institution" (iv)). If these checklists have not been submitted, no official grant decision will be made for the researchers belonging to the research institution in question.

The research institution that did not submit these two checklists in FY2024 should submit them in FY2025 format after April 1, 2025 onwards.

(2) Schedule After the Submission of the Application Documents (Plan)

The schedule below is as of March 1, 2024. There may be changes in the plan including the timing of the provisional grant decision. When the changes occur it will be announced on the JSPS website and through the research institutions.

Grant-in-Aid for Research Activity Start-up		
May-July 2025	Review	
Late July	Notice of review results / Provisional grant decision	
Late July	Disclosure of review results	
Middle of August	Formal application for grant delivery	
Late September	Official grant decision	
Late September	Grant delivery	

* The notification of review results of Grant-in-Aid for Research Activity Start-up will be given on the same day as the provisional grant decision.

3. Review Panels and Other Matters

(1) Concerning KAKENHI Review Omitted

(2) Review Methods and Other Matters

The review for the KAKENHI is carried out by the Scientific Research Grant Committee of the JSPS, and it is based on the Research Proposal Document. The review takes place behind closed doors.

As applicants provide unpublished research results and research ideas, and other information in their Research Proposal Documents on the premise that the review will be conducted privately, JSPS asks reviewers to maintain their confidentiality obligations, including the following.

- In order to protect the intellectual property of the applicants and ensure fairness of the peer review system, reviewers must not disclose the content of the Research Proposal Documents or any other information, in whatever form, that they learn in the course of the review to outside parties including their superiors, colleagues, or subordinates.
- Reviewers must not use any information that they learn in the course of the review for their own benefit.
- Reviewers have the obligation to keep the review materials under strict control.

The details on "assessment rules" such as assessment criteria for each research category (Rules concerning the review and assessment for the Grants-in-Aid for Scientific Research, called "review and assessment rules" below) can be checked on the JSPS website:

The review of the "Grant-in-Aid for Research Activity Start-up" are performed by each Review Section. The three reviewers will conduct document reviews. The panel reviews will not be conducted.

(URL : <u>https://www.jsps.go.jp/j-grantsinaid/01_seido/03_shinsa/index.html</u>).

- * Starting from the FY2024 call for proposals, the review method will change from a two-stage document review to a one-stage document review to make adoption/rejection decisions. This allows those whose research proposals were not adopted under this research category to secure sufficient preparation time needed for the application for Grant-in-Aid for Scientific Research, etc. upon receiving the notice of review results.
- * In the review process, the reviewers can utilize, as necessary, the "researchmap" and the Grants-in-Aid for Scientific Research Database (KAKEN) (see page 58-59).

(3) Notification of the Review Results

- 1) JSPS will issue a notification in writing to the PIs of the adopted research project on the opinions expressed in the review results via the electronic application system.
- 2) For Principal Investigators who had requested the disclosure of the review results in the event that their research proposals were not adopted, JSPS will disclose the approximate ranking within each the Review Section, the raw scores (average scores), and the "standard-format opinions." Disclosure will be made on the electronic application system.

III. Instructions for Prospective Applicants

1. Procedures to Be Completed Prior to the Application

The following three items must be completed prior to the submission of the research proposal:

- (1) Ascertainment of the Eligibility for KAKENHI Application,
- (2) Confirmation of the Researcher Information Registered in the e-Rad System,
- (3) Obtainment of an ID and a Password for the Electronic Application System.

(1) Ascertainment of the Eligibility for KAKENHI Application

An applicant submitting a research proposal to Grant-in-Aid for Scientific Research (KAKENHI) as Principal Investigator (PI) must meet the requirements (i) and (ii) stated below.

If qualified applicant(s) belong to more than one research institution, they may apply from either of them. However, they may apply for only one application under the "Grant-in-Aid for Research Activity Start-up."

(i)At the time of the proposal submission, a researcher needs to have been approved by his/her research institution (*1) as an eligible researcher who meets the Requirements a),
b) and c) stated below, and have his/her Researcher Information properly registered in the e-Rad system as eligible for KAKENHI application. (*2)

< Requirements >

- a) The applicant must be an individual belonging to a research institution with a job assignment including a research activity within the said institution. (Whether the job is paid/unpaid, or full-time/part-time is irrelevant. It is not a prerequisite of eligibility that the research activity constitutes the main part of his/her job.)
- b) The applicant must be actually engaged in a research activity in his/her research institution. (Those who are only engaged in research assisting jobs are ineligible.)
- c) The applicant must not be a graduate student nor any other categories of student. (However, an individual who has a position in a research institution with a research activity as his/her main job (e.g., a university teaching staff, a researcher belonging to a company, etc.) and holds a student status at the same time is eligible.)
- *1: Here, the research institution must be such that designated according to the Article 2 of the "Rules for the Handling of Grants-in-Aid for Scientific Research" (Notification of MEXT)
- *2 JSPS Fellows (DC) are deemed to have met the application requirements by being nominated as a JSPS Fellow (DC), notwithstanding the items a) through c) in (i) above. However, please check with your research organization regarding the requirements that it must meet.

(Reference) Requirements that the research institution must meet:

- < Requirements >
 - The research institution must authorize the research project for which KAKENHI is granted, as its proper activity.
 - The research institution must take responsibility for management and accounting of the KAKENHI delivered to its researchers.
- (ii)The individual must not be categorized as ineligible for grant acquisition in the fiscal year covered by a call for proposals, as a penalty for his/her improper grant spending, fraudulent grant acquisition, or research misconduct.

<Important Point 1>

A researcher who is employed with a KAKENHI grant (hereinafter referred to as "KAKENHI employee"), is generally bound by their employment contract to concentrate on the research work relevant to the KAKENHI project for which he/she is employed (hereinafter referred to as "employment-related work") specified in his/her employment contract. Therefore, such a KAKENHI employee cannot apply for his/her own KAKENHI project which is to be conducted within the working hours of his/her employment.

However, provided that he/she can clearly demarcate his/her own research hours from the working hours of employment and intends to conduct his/her own research project during the working hours on his/her own initiative, the KAKENHI employee can submit his/her own KAKENHI proposal, on the condition that the following points are verified by his/her research institution. The KAKENHI employee can apply for KAKENHI as a PI or become a Co-I.

- The KAKENHI employee is granted on his/her employment contract, to conduct research on his/her own initiative, besides the employment-related work.
- The employment-related work and the work devoted to the research on his/her own initiative are clearly demarcated in regard to the working hours and the effort.
- The KAKENHI employee is able to secure enough research hours (besides the working hours for his/her employment-related work) to be allotted to his/her own KAKENHI project.
- [Self-motivated research activities by young researchers employed with KAKENHI funding] A young researcher (*) who is employed with KAKENHI funds (KAKENHI employee) and meets the following conditions, may conduct his/her own research during the working hours assigned for the employment-related work, after going through the necessary procedures set by his/her research institution. He/She can apply for KAKENHI as a PI or become a Co-I.

(1) A young researcher desires on his/her own will to conduct his/she own research.

- (2) The PI and Co-I (the employer of the young researcher) desires that the said research has a positive contribution to the promotion of the funded research project for which he/she is employed, and the research institution approves the said decision.
- (3) The PI and Co-I judges that the efforts to be spared by the young researcher to the said research within the extent that do not cause any hindrance to the execution of the funded research project for which he/she is employed, and the research institution approves the judgement. (The upper limit of the efforts to be spared to the self-motivated research is 20 percent of the efforts to be put into the funded research project for which he/she is employed.)

* In this context, "young researcher" is defined as an individual who is age 39 or under or less than 8 years after Ph.D. acquisition (including an individual who has acquired a Ph.D. within the past 8 years excluding periods of maternity and/or childcare leave taken after his/her Ph.D. acquisition) as of April 1 of each fiscal year (hereinafter referred to as a

"KAKENHI-employee young researcher"), and whose job assignment includes research activities. When applying for Grants-in-Aid for Scientific Research (KAKINHI) he/she must meet the eligibility requirements for KAKENHI application.

Provided that the KAKENHI employer approves such self-motivated research activities in accordance with its funding resources (project) rules, if a researcher had originally met the eligibility requirements for KAKENHI's self-motivated research activities at the time of his/her application or participation, he/she may apply for KAKENHI and continue to engage in the adopted research project even if, during the project period, he/she no longer meets the requirements for a KAKENHI-employee young researcher. If there are changes to the funding resources (project) of the KAKENHI employer, the researcher must abide by the new funding resources (project) rules and reobtain the approval to conduct self-motivated research activities as a young researcher at the time the of the changing of funding resources

(Reference) Views on the self-motivated research activities by the KAKENHI employee

Attachment 1 to the "Changes in the FY2020 Call for Proposals for Grants-in-Aid for Scientific Research (KAKENHI) and Other Matters" (March 19, 2020) (Excerpt) URL:<u>https://warp.ndl.go.jp/info:ndljp/pid/12367425/www.jsps.go.jp/j-grantsinaid/06_jsps_inf</u> o/g_200316/index.html

Grants-in-Aid for Scientific Research (hereinafter referred to as "KAKENHI") is a funding scheme that is intended to promote development of scientific research (based on original ideas of researchers), encompassing basic to applied researches in all fields ranging from humanities and social sciences to natural sciences. Scientific research is a source of innovation *i.e.*, value creation based on new knowledge and has a vital role in nurturing human resources for leading a knowledge-based society broadly. It is particularly important to foster young scientists who are responsible for the next generation in order that the scientific research may sustainably exercise its role in the society.

It enable young researchers employed with a KAKENHI grant to conduct self-motivated research activities (including research activities with other research funds and activities helping research/management capacity building; hereinafter the same). Allowing them to conduct research activities in an independent and free research environment contributes not only to fostering young researchers, but also to the further development of the KAKENHI projects of their research institutions through research based on their freewheeling thinking and to the development of scientific research the entire country. Therefore, the concept of self-motivated research activities by young researchers is introduced in the KAKENHI scheme in this call for proposals.

For details refer to the following.

"Implementation Guidelines for Self-motivated Research Activities by Young Researchers Employed with Competitive Research Funds" (Revised on December 18, Agreement of the Liaison Meeting of Related Offices and Ministries on Competitive Research Funds) URL:<u>https://www.mext.go.jp/a_menu/shinkou/torikumi/1385716_00001.htm</u>

<Important Point 2>

JSPS Research Fellow (PD, RPD, CPD or DC) cannot apply for a Grant-in-Aid for Research Activity Start-up. Please note that students (see Note), such as graduate students and other students, as well as International Research Fellows cannot apply for KAKENHI grants even if they are tasked with the job of conducting research activities at their affiliated research institutions or other research institutions. (Note) The term "student" as defined here does *not* include such an individual who has a position to conduct research in his/her research institution, as the main job (e.g., university teaching staff, researcher belonging to company, etc.), and holds a student status at the same time.

<Important Point 3>

The PIs constitute the "members of funded projects," as stipulated in the Law on the Improvement of the Administration of the Budget for Grants-in-Aid (1955, Law no. 179). In an event that they have committed improper grant spending, fraudulent grant acquisition, research misconduct, etc. the eligibility for KAKENHI application will be suspended for a period of time specified by the rule.

In the following cases, an individual registered in the e-Rad system as "eligible for KAKENHI application" may be subject to different treatment.

- In case the research institution to which the individual belongs has made a judgement that it is not appropriate to let the individual conduct the said research activity as a part of his/her work within the research institution, the research institution may withhold the submission of his/her KAKENHI proposal, or may withhold the formal application for grant delivery of a provisionally adopted KAKENHI grant resulting in declination of the grant in question.
- In case a KAKENHI recipient has failed to submit the "Report on the Research Achievements" that is due after the completion of the research period of his/her KAKENHI without any good reason, no new KAKENHI grant(s) will be delivered to him/her, even if the grant(s) have been provisionally adopted. Moreover, if a KAKENHI recipient has failed to submit the "Report on the Research Achievements" by the due date, then the delivery of KAKENHI grant(s) for that fiscal year will be suspended.

Applicants for a "Grant-in-Aid for Research Activity Start-up" are required to possess the above-stipulated eligibility at the time of application. They must also satisfy one of the following two requirements, A) or B), to be confirmed by their research institution.

Researchers who intend to apply for KAKENHI should meet following the following application eligibility.

Requirements:

- A) An individual who obtains eligibility for KAKENHI application on or after September 19, 2024, and has not submitted an application under the call for proposals for the following research categories(*1) announced by MEXT and JSPS.
- B) An individual who has not submitted an application under the call for proposals for the following research categories(*1) announced by MEXT and JSPS because he/she was on

maternity leave or was raising a preschooler(*2) in FY2024.

(*1) Pertinent FY2025 Grants-in-Aids: "Grant-in-Aid for Specially Promoted Research",

"Grant-in-Aid for Transformative Research Areas", "Grant-in-Aid for Scientific Research",

"Grant-in-Aid for Challenging Research", and "Grant-in-Aid for Early-Career Scientists".

(*2) Including the period of childcare leave.

[Examples of Persons Eligible to Apply for the Grant]

Persons who satisfy one of the Conditions, A) or B), are eligible.

Condition "A)"

- 1) Persons who were newly hired as researchers by a Japanese research institution or employed by an overseas or private company on or after September 19, 2024
- 2) Persons who were hired as educational specialist without KAKENHI eligibility, then hired as researcher on or after September 20, 2023, obtaining the eligibility.
- 3) Researchers who had eligibility but lost it due to being employed at an overseas research institution then regained it on or after September 19, 2024.

Condition "B)"

Persons who were not able to apply in April and July 2024 for a Grant-in-Aid (KAKENHI) because they were taking maternity and/or was raising a preschooler during FY 2024.

* This applies regardless of whether or not you took maternity and/or childcare leave during the April and July 2024 application recruitment period.

*Attention:

If a researcher who satisfies Condition A) was, for some reason outside his/her control, erroneously registered in e-Rad as "Eligible to Apply for Grants-in-Aid for Research" on September 18, 2024 or if a researcher satisfies Condition B), his/her research institution must prepare the "Background Description" and submit it to JSPS by 0:00 pm May 2, 2025 (to be strictly observed). If the form does not arrive at JSPS by this date, the researcher will not be able to prepare his/her research proposal on the electronic application system. Therefore, researchers should offer to their intention to apply for this grant to their research institution early. Irrespective of the reason, forms that do not meet the deadline will not be accepted; therefore, applicants should confirm the application requirements well in advance.

Final Deadline for Submission of the "Background Description" : 0:00 pm May 2, 2025 (to be strictly observed)

- Note 1 If a person does not satisfy one of the eligibility conditions, the mere submission of the "<u>Background Description</u>" will not qualify him/her for Research Activity Start-up support.
- Note 2 When the research institution submits the "Background Description", Principal Investigators will be able to access the Electronic Application System. (which differ according to the date that form arrives at JSPS) For details, see "The Accessible Date to the Electronic Application System" referring to supplement (referring to supplement).

(2) Confirmation of the Researcher Information Registered in the e-Rad System

A researcher who intends to submit a research document proposal as the PI to any of the KAKENHI categories for which "Call for Proposals" is announced, must carry the eligibility for KAKENHI application at the time of submission of the "Research Proposal Document" from his/her research institution to JSPS, and must be registered in the e-Rad system as such. Therefore, <u>it is important for the researcher to ascertain proper registration of his/her Researcher Information in the e-Rad system.</u>

The registration in the e-Rad system is handled by <u>the research institution</u> to which the researcher belongs. The researcher should check with the administrative section of his/her institution about the registration procedures including the registration deadline within the institution, the method of confirmation of the current contents of registration, etc. If any of the entry items (such as "affiliation," "position," etc.) of the researcher who has been already registered in the e-Rad system need updating, they should be duly completed.

*Registration of researcher information in e-Rad and linkage to the electronic application system regarding the implementation of research integrity measures Starting from the FY2025 call for proposals, research integrity information registered in e-Rad will be linked to the electronic application system, and you will be requested to enter the necessary information in your Research Proposal Document based on the e-Rad registered research integrity details. <u>Please note, in particular, that you cannot make application if the Principal Investigator</u> <u>and/or Co Investigators have not registered in e-Rad the status of pledge regarding their</u> <u>research integrity information for their affiliated institution. Therefore, please make</u> <u>sure to confirm the registration status of the relevant information in advance.</u> For details, please check carefully the Supplement to the Application Procedures for Grants-in-Aid for Scientific Research.

(3) Obtainment of an ID and a Password for the Electronic Application System

When the research institution completes the e-Rad registration of a researcher, an ID and a password will be issued for him/her. The researcher can access the KAKENHI Electronic Application System using the ID and password and prepare the Research Proposal Document. The first date that a researcher can access the electronic application system is based on the date that he/she obtains an e-Rad ID and password. For details, see "The Accessible Date to the Electronic Application System" referring to supplement.

The ID and the password issued to a researcher remain valid after he/she moves to another research institution. <u>Every researcher should exercise due care in handling his/her ID and password so as to prevent their leakage and abuse.</u>

2. Restriction on Parallel Grant Application/Receipt

A researcher who intends to submit research proposal(s) to KAKENHI should be well acquainted with the "Restrictions on Parallel Grants Application/Receipt" before starting preparation of research proposal document(s) to check if applications to the intended categories are permitted.

(1) The Basic Policy for Restriction on Parallel Grant Application/Receipt

KAKENHI consists of different "Research Categories" and "Application Sections" set on the basis of budget scale, content, and other factors of the intended research, so as to meet various needs and research styles of the applicants.

On the other hand, in consideration of the necessity to support many excellent researchers with limited funding resources, and of the possible detrimental influence of overcrowding applications on the proper management of the review process, the "Rules for Restrictions on Parallel Submission of Research Proposals" have been set up, according to the following basic principles.

- Give considerations so as to ensure that as many excellent researchers as possible can be supported with limited funding resources.
- Give considerations so as to ensure that the number of applications does not become excessive in comparison with the review scheme of each research category.
- The restrictions to be enforced are primarily directed to the applicant as Principal Investigator (PI) who bears all responsibility for the implementation of the research project. In some cases, such as the research categories with large budget scale, however, the restrictions may be also extended to individuals as the Co-Investigator (Co-I).
- O The restriction on parallel submission of research proposals and the restriction on simultaneous receipt of grants are separately set on each of the KAKENHI research categories, in accordance of the basic concepts outlined above and by taking into consideration the purpose, characteristics and other factors of each KAKENHI category

Restrictions on parallel grant application/receipt do apply to the current round of call for proposals. Accordingly, the applicant should be well acquainted with the description of the rules given below.

In case a particular research project falls under the concept of "unreasonable duplication" as put forward in the "Guidelines on the Proper Implementation of Competitive Research Funds" (see page 16), it may be judged as such in the review process. Therefore, the applicant should take due precautions in preparing his/her research proposal document.

(2) Restrictions on Parallel Grant Application/Receipt

(i) <u>Under the "Grant-in-Aid for Research Activity Start-up," an individual researcher may</u> <u>apply as the Principal Investigator for only one research application.</u>

- (ii) Principal Investigators of other KAKENHI projects during FY 2025 (include interrupted projects due to maternity/childcare leave, research stay abroad, etc.) may not apply for the Grant-in-Aid for Research Activity Start-up except in the following cases:
 - a) The PI of the Grant-in-Aid for Encouragement of Scientists FY2025 may also apply Grant-in-Aid for the Research Activity Start-up if they become eligible to apply the Grant-in-Aid of the Research Activity Start-up. However, if selected for both grants, they must abolish the research project for Encouragement of Scientists immediately upon receipt of the Notice of Provisional Decision for the Research Activity Start-up.
 - b) Fellows under the JSPS Research Fellowships and JSPS Postdoctoral Fellowships for Overseas Researchers who are PI or Co-I of Grant-in-Aid for JSPS Fellows can apply if they become eligible to apply the Grant-in-Aid of the Research Activity Start-up. (Example: A person hired as an assistant professor and loses his/her JSPS fellowship eligibility.) If selected for a Research Activity Start-up grant, the researcher must abolish the research project for

JSPS Research Fellows immediately upon receipt of the Notice of Provisional Decision for the Research Activity Start-up.

- (iii) PIs selected for a grant under the Fund for the Promotion of Joint International Research (Home-Returning Researcher Development Research) in the 2023 and 2024 fiscal years are not eligible to apply for a Research Activity Start-up grant in FY 2025.
- (iv) Restrictions on parallel grant application/receipt will not apply if an applicant, who intends to submit a research proposal as PI under this research category, is participating as Co-I in another new KAKENHI project in FY2025, or is already a Co-I of an ongoing research project that is scheduled to continue into FY2025 (a continued research project). However, to be eligible to apply for this research category, the applicant must have his/her research institution confirm that he/she meets either of the eligibility criteria under the Application Requirements for Grant-in-Aid for Research Activity Start-up. (See III. Instructions for Prospective Applicants > 1. Procedures to be Completed Prior to Application > (1) Ascertainment of the Eligibility for KAKENHI Application)

Take note that, similar to becoming a PI, applicants must be eligible to apply for KAKENHI in order to participate in a KAKENHI project as Co-I.

(v) If an applicant applied for FY2025 Grant-in-Aid for Fostering Joint International Research with the research project under Grant-in-Aid for JSPS Fellows, and is selected for this research category, his/her application will not be reviewed under the Grant-in-Aid for Fostering Joint International Research category.

(3) Important Notes

- (i) In some cases, even after a research proposal has been duly submitted via the Electronic Application System, it may be eliminated from the subsequent review process on the basis of the rules of restrictions on parallel grant application/receipt. The applicant should check against such possibility before submitting the research proposal document.
- (ii) The rules of restrictions on parallel submission of research proposals do apply to a case in which a researcher carrying eligibility for applications in more than one research institutions intends to submit different proposals from each of those institutions.
- (iii) A researcher must not neglect his/her responsibility as a Principal Investigator due to participation in plural research projects.

- (iv) The PI of Grant-in-Aid for Research Activity Start-up can submit a KAKENHI proposal for the other research categories in subsequent fiscal years. They can newly receive grant(s) of the other research categories without giving up the former research project of Grant-in-Aid for Research Activity Start-up from the call for proposals for FY2026.
- (v) If an individual is granted his/her application in Grant-in-Aid for Research Activity Start-up, and if subsequently he/she is adopted as JSPS Fellow, he/she has to choose either the JSPS fellowship or the KAKENHI project.

<u>A JSPS Research Fellow (PD, RPD, CPD or DC), during the period of his/her term, cannot</u> <u>submit any research proposals to those research categories for which the rules of</u> <u>restrictions on parallel grant application/receipt applies.</u>

Therefore, even after a submitted proposal has been duly filed in the Electronic Application System, it may be eliminated from the subsequent review process by the rules of restrictions on parallel grant application/receipt. The applicant should check against such possibility before submitting the research proposal document.

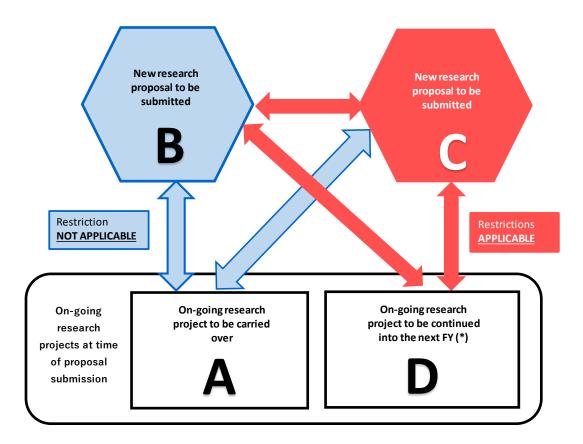
(vi) Although there is no restriction on duplicate applications between the KAKENHI program and other competitive research funds schemes, applicants should take into account the stipulations in the "Elimination of Unreasonable Duplication and/or Excessive Overconcentration in the Grant Allocation" (see pages 16-18) when applying.

(4) Special Provisions for the Restriction on Parallel Grant Application/Receipt (Handling of the Restrictions on Parallel Grant Application/Receipt in Relation to carry-over of KAKENHI (Series of Single-year Grants) to the following fiscal year)

(i) When a PI of an on-going project of KAKENHI (Series of Single-year Grants) carries over all or parts of the grant to be used in the following fiscal year, **the restriction on parallel grant application/receipt does not apply** between the project approved for carry-over and the new research proposal he/she intends to submit.

(ii) On the other hand, the restriction on parallel grant application/receipt does apply between the new research proposal and other new research proposal(s) (including the on-going project(s)) to be submitted by the same PI.

Figure 1: Image of restrictions on parallel grant application/receipt in relation to carry-over of KAKENHI(Series of Single-year Grants) to the following fiscal year



Whereas: "A" is an on-going research project to be carried over to the next fiscal year; and "B" is a new research proposal to be submitted. In this case, the restriction on parallel grant application/receipt does not apply between A and B. However, if the researcher intends to submit a research proposal for a different research proposal "C" (in addition to B) for this call for proposals, the restriction on parallel grant application/receipt does not apply between B and C. Furthermore, if the researcher has an on-going research project "D" (in addition to A) which will be continued into the next fiscal year, restrictions on parallel grant application/receipt shall apply between B and D. Similarly, if the researcher intends to submit a research proposal for C, restrictions on parallel grant application/receipt shall apply between C and D.

* Here, the same research project as A to be conducted in the fiscal year following the fiscal year in which it is to be carried over will fall under D. (For example, if a research project is an on-going project that will be continued into FY2025, the research project to be carried over will fall under A in Figure 1 during FY2024, and will fall under D in FY2025.)

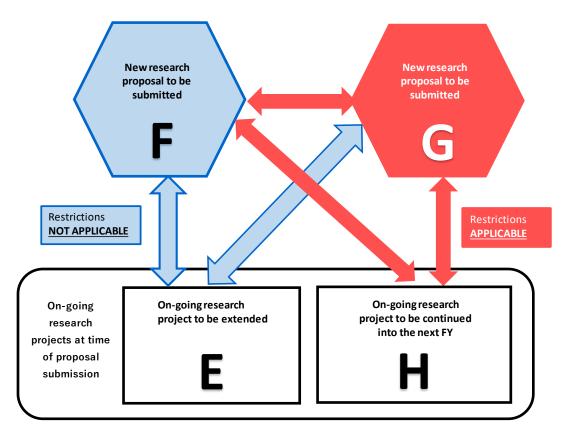
(Handling of the Restrictions on Parallel Grant Application/Receipt in Relation to Extension of the Research Period of KAKENHI (Multi-year Fund))

(i) When a PI of an on-going project of KAKENHI (Multi-year Fund) extends the research period in the final fiscal year (except the case with the

interruption of the research due to maternity/childcare leave, research stay abroad, etc.), **the restriction on parallel grant application/receipt does not apply** between the on-going project and a new research proposal he/she intends to submit.

(ii) On the other hand, the restriction on parallel grant application/receipt does apply between the new research proposal and other new research proposal(s) (including the on-going project(s)) to be submitted by the same PI.

Figure 2: Image of restrictions on parallel grant application/receipt in relation to extension of the research period of KAKENHI (Multi-year Fund)



Whereas: "E" is an on-going research project in the final fiscal year of the research period, and the researcher intends to extend the research period (not including cases where researcher suspends the research for maternity/childcare leave, etc.); and "F" is a new research proposal to be submitted. In this case, the restriction on parallel grant application/receipt does not apply between E and F. However, if the researcher intends to submit a research proposal for a different research proposal "G" (in addition to F) for this call for proposals,

the restriction on parallel grant application/receipt does not apply between E and G, but shall apply between F and G. Furthermore, if the researcher has an on-going research project "H" (in addition to E) which will be continued into the next fiscal year, restrictions on parallel grant application/receipt shall apply between F and H. Similarly, if the researcher intends to submit a research proposal for G, restrictions on parallel grant application/receipt shall also apply between G and H.

3. Preparation of the KAKENHI Application Form (Research Proposal Document), etc.

Grants-in-Aid for Scientific Research is a competitive research funds intended to provide financial support for creative and pioneering research conducted by individual researchers. Therefore, <u>the</u> <u>contents of the Research Proposal Document must be original planned by the applicant.</u> In preparing Research Proposal Document, plagiarism and/or misappropriation of the research <u>contents of others are strictly impermissible</u>. Applicants must comply with research ethics. In addition, if the research plan involves traveling abroad, etc., applicants should carefully determine <u>the feasibility of the plan</u>.

Applicants should note that the entire Research Proposal Document, including the title of the research project will be reviewed, and will be publicized widely in the Grants-in-Aid for Scientific Research (KAKENHI) Database (KAKEN) if the research proposal is adopted. Therefore, make sure to select a title that effectively reflects the content of the research project.

For submission of a research proposal, the applicant (PI) has to complete the relevant Research Proposal Document. The Research Proposal Document consists of two parts: "Items to be entered in the Website" and "Forms to be uploaded as an attached file".

The PI (applicant) should complete the Research Proposal Document (PDF file) by entering the "Items to be entered in the Website" and by uploading the "Forms to be uploaded as an attached file" to the Electronic Application System. Then he/she should submit the Research Proposal Document to the administrative section of his/her research institution, by the deadline set by the institution. Preparation and submission of the KAKENHI Research Proposal Document should follow the procedures detailed below.

(1) Preparation of KAKENHI Research Proposal Document

For the preparation of the KAKENHI research proposal document, <u>the applicant must first</u> <u>access the Electronic Application System using his/her e-Rad ID and Password.</u>

On the Research Proposal Document

The KAKENHI Research Proposal Document consists of the following two parts:

Items to be entered in the Website:

Items to be directly entered by the PI (applicant) on the website of the KAKENHI Electronic Application System

Forms to be uploaded:

A part containing such entries as "Research Objectives, Research Method, etc." to be prepared by downloading the form from the "Grants-in-Aid for Scientific Research -KAKENHI-" page within the JSPS website

(URL:<u>https://www.jsps.go.jp/j-grantsinaid/22_startup_support/download.html</u>), and by uploading the filled form to the KAKENHI Electronic Application System so as to compile a PDF file of the research proposal document. (Paper-based applications will not be accepted.)

	Research Proposal Document			
Research category Application Section	Items to be entered in the Website (First part)	Forms to be uploaded (File ID)	Items to be entered in the Website (Second part)	
Grants-in-Aid for Research Activity Start-up	To be entered in the electronic application system (Research project Information)	S-22	To be entered in the electronic application system (Fundamental data on the research project such as total budget, Data on the project members, etc.)	

*Forms can be downloaded from the "Grants-in-Aid for Scientific Research - KAKENHI" page within the JSPS website (URL: <u>https://www.jsps.go.jp/j-grantsinaid/22_startup_support/download.html</u>) even before the obtaining of the e-Rad ID and password.

(Reference)Revision of the Research Proposal Document

Starting from the FY2019 call for proposals, the "Research Achievements of the Principal Investigator (PI) and Co-Investigator(s) (Co-I(s))" column in the Research Proposal Document was revised as the "Applicant's Ability to Conduct the Research and the Research Environment" column, based on the idea that "research achievements are necessary to confirm the applicant's ability to conduct the research plan for application, and the exhaustive description of such achievements will not be required."

Please read the Supplement to the Application Procedures "Forms/Procedures for Preparing and Entering a Research Proposal Document" carefully in preparing a Research Proposal Document.

(2) Electronic Submission of the Research Proposal Document

- (i) An applicant should prepare his/her Research Proposal Document (PDF file) by entering the "Items to be entered in the Website" and by uploading the separately prepared "Forms to be uploaded as an attached file" to the Electronic Application System, following the instructions in the "FY2025 Procedures for Preparing and Entering a Research Proposal Document" and "FY2025 Procedures for Preparing and Entering a Research Proposal Document (Items to be entered in the Website)".
- (ii) The Research Proposal Documents are collected and submitted to JSPS by the research institution to which the PIs (applicant) belong. Therefore, the applying PI should submit his/her Research Proposal Document to the administrative section of his/her research institution by the deadline set by the institution. (It is not allowed to submit the Research Proposal Document directly to JSPS.)

Before submission, the applying PI should carefully check the contents of the Research Proposal Document (PDF file) he/she prepared, and subsequently proceed to the "Check Completed and Submission" stage of the submission process. (This amounts to submitting the Research Proposal Document (PDF file) to the administrative section of his/her research institution.) After the "Approval" process by his/her institution, the applicant can make no further corrections or modifications to the submitted Research Proposal Document (PDF file) approved by his/her institution, the applicant can make no further corrections or modifications after the deadline for submission to JSPS.

(iii) The personal information contained in the Research Proposal Document and any personal information registered in Electronic Application System will be used for purposes such as the elimination of unreasonable duplication and/or excessive concentration in the allocation of competitive research funds, the appropriate funding of KAKENHI grants, and to conduct questionnaires on scientific technology policies including KAKENHI grants (this includes providing the data to external contractor(s) in charge of electronic processing and management of the KAKENHI data). Any such information will also be provided to the e-Rad system. (The information registered in the e-Rad system is utilized for proper assessment of research and development by national funding, development of effective and efficient comprehensive strategy, planning and development of resource allocation policy, etc. Therefore, the information will be supplied to the Cabinet Office through the e-Rad system. The applicant may be requested to cooperate in verification of the information and other related works.) The information on the adopted KAKENHI projects (the title of research project, the name of PI, and his/her affiliated research institution, the grant to be delivered, research period, etc.) is categorized as "information planned to be made public", as laid down in Article 5, paragraph 1, item 1 of the "Act on Access to Information Held by Independent Administrative Agencies" (Act No. 140 of 2001). The information will be made public through press release materials, the Grants-in-Aid for Scientific Research Database (KAKEN) of the National Institute of Informatics, and other means.

The researchers and their affiliated research institutions are requested to carry out the application procedures (including (ii) above) with full understanding of the information handling (utilization, provision and disclosure) stated above.

(3) Important Checkpoints of the Research Proposal Document

In preparing a Research Proposal Document, the applicant should pay attention to the following points among others, so as to avoid "outright rejection by incompleteness of the research proposal document".

(i) Qualification as a KAKENHI project

The following kinds of research plans fall outside the scope of funding target:

- A) A research plan which merely aims at purchasing ready-made research equipment.
- B) A research plan whose purpose is to build a large-size research facility or equipment which is more appropriate to be funded by other resources.
- C) A research plan whose purpose lies at developing and selling goods and/or services (including market research associated with such as them).
- D) An entrusted research conducted as regular business.
- E) A research plan with a yearly research expenditure for any of the fiscal years in its research period less <u>than 100,000 yen</u>.

(ii) Eligibility of the Project Members

The PI may organize a research team with appropriate combination of Research Collaborators(s), as needed by the nature of the research project.

As is the case for PI is also subject to verification of their KAKENHI eligibility by their respective research institute by the time of proposal submission. On the other hand, to be a Research Collaborators(s), registration to the e-Rad system is not a requirement.

A) Principal Investigator (PI) (Applicant)

i) Principal Investigator is the main recipient of the grant who bears full responsibility for the implementation of the research project (including compiling the research achievements). An individual who is anticipated to become unable to carry through the PI's responsibility over the entire research period due to, for example, loss of the KAKENHI eligibility caused by PI's own accord, should refrain from becoming a PI. (See Note below)

(Note)

The Principal Investigator is the researcher who plays the central role in the implementation of the research plan and thus bears a heavy responsibility. An individual who is anticipated to lose his/her eligibility for KAKENHI application during the research period due to his/her own accord so that is anticipated to be unable to carry through the responsibility, should refrain from becoming a Principal Investigator. (Substitutions of the PI of an on-going KAKENHI project are not permitted.)

As an exception, for the "Planned Research" of "Transformative Research Areas" and "Scientific Research on Innovative Areas (Research in a Proposed Research Area)" replacements of PI may be accepted by going through required procedures.

ii) The PI must be registered in the e-Rad system as "Eligible for KAKENHI Application". It is also required that he/she is not designated as "ineligible for grant receipt" in the fiscal year covered by a call for proposals (suspension of eligibility), as a penalty for such misconducts as improper grant spending, fraudulent grant acquisition or research misconduct associated with KAKENHI or any other competitive research funds.

B) Research Collaborator

- i) Research Collaborator is an individual who cooperates in the implementation of a research project other than the PI.
- ii) Registration as "Eligible for KAKENHI application" in the e-Rad system is not a requirement for becoming a Research Collaborator.

For example, following person can also participate in the research project as a Research Collaborator: a postdoctoral researcher, a graduate student, a research assistant (RA), JSPS Research Fellows (PD, RPD, CPD or DC) who are not registered as eligible for KAKENHI application in their host research institution, a researcher belonging to an overseas research institution, a researcher belonging to a corporation not designated as a research institution according to Article 2 of the Rules for the Handling of Grants-in-Aid for Scientific Research, and an individual offering research support such as technician and intellectual property specialist.

(iii)Requirements for the Appropriation of Research Expenditure

i) Expenditures that can be covered by direct expense

Expenditures necessary for the implementation of the research plan (including those

necessary for compiling the research achievements)

* If any of the expenditure categories (equipment costs, travel expenses, or personnel cost/honoraria) exceeds 90% of the total yearly expenditure in any fiscal year of the research period, or if the expenditure in category Consumables or Miscellaneous constitutes a significant portion of the total expenditure, the necessity of that spending should be clarified in Research Proposal Document.

[Direct Expense of Competitive Research Funds to Cover the Costs of Assignments Other Than Research]

The cost of "buyout" (*i.e.*, the cost for hiring someone taking over a part of the duties other than research (*) of the Principal Investigator or Co-Investigator(s)) can be covered by the direct expense so that they can secure ample amount of time for research projects (the buyout system).

* The kinds of duties that can be covered by the buyout system are those authorized as proper jobs of the researcher at his/her research institution, excluding (i) research activities, and (ii) administrative work for institutional management. They include educational and related activities, e.g., educational activities (teaching and preparation for teaching, supervising students) and social engagement activities (medical practices, outreach activities). Activities associated with business profit are excluded.

Starting from the FY2021 Call for Proposals, the buyout system is applicable in the research categories listed below. A KAKENHI applicant who wish to use the buyout system should do so according to the buyout scheme agreed upon between him/her and his/her research institution.

When an applicant wishes to use the buyout system, enter the cost of the buyout in the "Miscellaneous expense" column, and enter the word "buyout" in the "Item" column of the Research Proposal Document form. (Please refer to the supplementary volume of "Application Procedures for Grants-in-Aid for Scientific Research-KAKENHI-" (Forms/Procedures for Preparing and Entering a Research Proposal Document).

[Research categories subject to the buyout system]

Specially Promoted Research, Transformative Research Areas (excluding "Platforms for Advanced Technologies and Research Resources"), Scientific Research on Innovative Areas (Research in a Proposed Research Area) (excluding "Platforms for Advanced Technologies and Research Resources"), Scientific Research, Challenging Research (including "Challenging Exploratory Research"), Early-Career Scientists (including "Young Scientists (A/B)"), Research Activity Start-up, International Leading Research, International Collaborative Researchincluding Fostering Joint International Research (B) before name change), Home-Returning Researcher Development Research (limited to those who belongs to the domestic research institutions), Special Purposes.

[Research categories *not* subject to the buyout system]

Encouragement of Scientists, Publication of Scientific Research Results, JSPS Fellows, Transformative Research Areas ("Platforms for Advanced Technologies and Research Resources"), Scientific Research on Innovative Areas (Research in a Proposed Research Area) ("Platforms for Advanced Technologies and Research Resources"), Fostering Joint International Research (including Fostering Joint International Research (A) before name change). As for the research category of Fostering Joint International Research (including Fostering Joint International Research (A) before name change) it is possible to budget the cost for hiring replacements. As for the details of the expenses covered by the buyout system and matters to be done by the research institution refer to the following.

"Amendment Enabling Direct Expense of Competitive Research Funds to Cover the Costs of Duties Other Than Research (Introduction of Buyout System)" (October 9, 2020, Agreement of the Liaison Meeting of Related Offices and Ministries on Competitive Research Funds)

https://www.mext.go.jp/a_menu/shinkou/torikumi/1385716_00003.htm

The objective of the buyout system is to increase the number of hours the PI (or Co-I) can devote to the funded project on the basis of his/her own needs and request. Accordingly, items such as the actual presence of the PI's (or Co-I's) needs and request, and the resulting expansion of research time devoted to the funded project (increased number of hours for research) may be subject to later inspection in relation to the grant spending. In the event that the buyout expenditure is found to be used improperly (e.g., the increase in hours devoted to the funded project is not verified), an order to return the delivered grant may be issued. Therefore, the research institution should ensure the appropriate implementation of the buyout system.

ii) Expenditures that cannot be covered by KAKENHI

- A. Costs associated with buildings and other facilities (excluding expenditure for installations necessary for installation of research equipment purchased by the KAKENHI direct expense).
- B. Expenditures for measures to deal with accidents or disasters that occurred during the implementation of funded project
- C. Personnel cost/honoraria for the PI
- D. Other expenditures that are apt to be covered by indirect expense*

 Indirect expense which amounts to 30% of the direct expense, is intended for use by the research institution in covering expenditures needed by the research institution for the management and other things associated with the implementation of the research project.
 Indirect expense will be placed for Grants-in-Aid for Research Activity Start-up. Applicant does not need to state the indirect expense in his/her Research Proposal Document.

(iv)No mistakes in the format, etc. of the Research Proposal

i) No garbled characters and so on.

The electronic form of the Research Proposal Document (PDF files) submitted through the system will be used as they appear in the review. It is the PI's responsibility to check whether the contents of the Research Proposal Document converted to the PDF file are complete (missing characters, charts, garbled characters, etc.) before submitting. Research Proposal Documents using colored figures and text will be used as they appear in the review.

ii) Verification of the Application Forms

It should be verified whether the application format is in conformity with the prescribed format. As for the forms to be uploaded, in particular, verify not only the total number of pages but also the number of pages instructed for each column is met. For example neither following case 1 in which the total number of pages is different nor following case 2 in which the total number of pages is same but the number of pages instructed for each column are different are inconformity with prescribed format.

				e inte puge(s)	
	Nur				
	"Research	"Applicant's Ability to	"Issues Relevant to	Total	
Objectives, Research		Conduct the Research	Human Right	Number of	
	Method, etc."	and the Research	Protection and Legal	Pages	
	Column	Environment" Column	Compliance" Column		
Correct					
Number	3	2	1	6	
of Pages					
Incorrect					
Number	2	2	1	5	
Case 1					
Incorrect					
Number	2	3	1	6	
Case 2					

Unit: page(s)

4. Code of Conduct for Scientists to Adhere

To ensure the quality of scientific knowledge and to gain trust of society on scientists and scientific communities, it is essential to exercise fair and conscientious research activities with the adherence to the code of conduct for scientists. Applicants must understand and practice the contents of both the Statement "Code of Conduct for Scientists –Revised Version-" (section I. "Responsibilities of Scientists") by the Science Council of Japan and the booklet "For the Sound Development of Science -The Attitude of a Conscientious Scientist-" (especially section I "What Is a Responsible Research Activity?") issued by JSPS.

And also take note that upon the formal application for grant delivery, it shall be confirmed through the electronic application system whether the Principal Investigator will have taken the research ethics education coursework, etc. (See page 58)

[Extraction from the Statement "Code of Conduct for Scientists -Revised Version-" by the Science Council of Japan dated January 25, 2013]

I Responsibilities of Scientists

(Basic Responsibilities of Scientists)

1 Scientists shall recognize that they are responsible for assuring the quality of the specialized knowledge and skills that they themselves create, and for using their expert knowledge, skills and experience to contribute to the health and welfare of humankind, the safety and security of society and the sustainability of the global environment.

(Attitude of Scientists)

2 Scientists shall always make judgments and act with honesty and integrity, endeavoring to maintain and improve their own expertise, abilities and skills, and shall make the utmost effort to scientifically and objectively demonstrate the accuracy and validity of the knowledge they create through scientific research.

(Scientists in Society)

- 3 Scientists shall recognize that scientific autonomy is upheld by public trust and the mandate of the people, understand the relationships between science, technology, society, and the natural environment from a wide-ranging perspective, and act in an appropriate manner.
- (Research that Answers to Social Wishes)
- 4 Scientists shall recognize that they are responsible for answering to the wishes of society to investigate into truths and to achieve various issues. When using research funds that are to be provided for establishing the research environment and for conducting research scientists shall always recognize that such broad social expectations exist.
- (Accountability and Disclosure)
- 5 Scientists shall strive to disclose and actively explain the roles and significance of their own research, evaluate the possible effects of their research on people, society and the environment as well as the changes that their research might engender, neutrally and objectively disclose the results of this evaluation, and build a constructive dialogue with society.
- (Dual Use of Scientific Research Outcomes)
- 6 Scientists shall recognize that there exist possibilities that their research results, contrary to their own intentions, may be used for destructive actions, and shall select appropriate means and methods as allowed by society in conducting research and publicizing the results.

* URL: http://www.scj.go.jp/ja/scj/kihan/

["For the Sound Development of Science – The Attitude of a Conscientious Scientist –" by the JSPS] (Japanese version (text version)) ("For the Sound Development of Science" Editorial Committee on JSPS)

* URL: <u>https://www.jsps.go.jp/j-kousei/data/rinri.pdf</u>

5. Completion of Research Ethics Education Coursework, etc.

Principal Investigator (PI) taking part in a research funded by KAKENHI, are requested to have completed properly the following procedures including research ethics, by the time they submit the formal application for grant delivery of a newly adopted research project in the FY2025 Grants-in-Aid for Scientific Research, and <u>upon the formal application for a grant delivery, it shall</u> <u>be confirmed through the electronic application system whether they will have taken the research</u> <u>ethics education coursework, etc.</u>

If a PI completed the research ethics related procedures in the past, or has moved from the research institute at which he/she completed the procedure, he/she should check with the administrative section of his/her current institution for the validity of the procedure he/she conducted in the past.

[Actions to be taken by the Principal Investigator]

- The PI must either read through and learn the teaching materials by oneself concerning the research ethics education coursework such as "For the Sound Development of Science The Attitude of a Conscientious Scientist" published by the JSPS Editorial Committee of "For the Sound Development of Science, the "e-Learning Course on Research Ethics [eL CoRE] or "APRIN e-learning program (eAPRIN)", etc., or attend a lecture on research ethics conducted by research institutes based on the "Guidelines for Responding to Misconduct in Research" (adopted by the MEXT on August 26, 2014), by the time of the formal application for grant delivery.
- The PI must understand thoroughly and exercise the proper research practices in conducting his/her research, from amongst the contents of both the Statement "Code of Conduct for Scientists -Revised Version-" by the Science Council of Japan and the booklet "For the Sound Development of Science -The Attitude of a Conscientious Scientist-" issued by JSPS, by the time of the formal application for grant delivery.

6. Registration of the Researcher Information in "researchmap"

The "researchmap (URL: <u>https://researchmap.jp/</u>)" is the Japan's largest researcher information database as a general guide to Japanese researchers. The information on the research achievements registered in the researchmap is ready to be openly available over the Internet and the database itself is linked to the e-Rad, many university faculty databases and so on. The Japanese Government as a whole is going to further utilize the researchmap.

Furthermore, since the posted information in the researchmap and/or the Grants-in-Aid for Scientific Research Database (KAKEN) is to be handled as a reference according to the necessity in the review of the KAKENHI applications, the registration of the researcher information into the researchmap is encouraged. In addition, when doing so, make sure to register the "Researcher Number" because the

posted information is to be searched with the "Researcher Number" when referring to the posted information in the researchmap at the review.

< Inquiries > Service Support Center (in charge of the "researchmap") Department for Information Infrastructure Japan Science and Technology Agency Web inquiry form: <u>https://researchmap.jp/public/inquiry/</u>

7. Cooperation to Review

The Grants-in-Aid for Scientific Research-KAKENHI- adopts a peer-review process in which the researchers selected from their own community engaged themselves in the assessment and reviewing of each research proposals on the basis of its scientific merit. The KAKENHI review is conducted thanks to the cooperation of more than 8,000 researchers as reviewers. The peer review forms the basis of the autonomy of academic community and plays an important role in ensuring quality of scientific research and its improvement. The review of applications is carried out with the constructive and mutually critical spirit of scientists and based on the purely academic value. It is no exaggeration to say that the KAKENHI review system is indispensable in supporting Japan's scientific research into the future among other research funds.

The Grants-in-Aid for Scientific Research (KAKENHI) program is supported by researchers who have responsibilities not only to conduct the funded research projects as applicants and grant recipients but also as a reviewers. It is important for researchers to find out excellent research proposals as reviewers in order to support the scientific research as is the case of putting out excellent research results with KAKENHI funds. It is expected that the above-stated understanding is share in the academic community. Furthermore, participating to the review process has an aspect of fostering researchers through enhancing their capability to conduct the objective and academic assessments based on the various views of fellow reviewers leading up to broaden their horizons. In order to support the peer-review system of KAKENHI by the whole body of researchers by appropriately sharing the burden of proposal review without putting an extra load on some researchers. The researchers' positive participation in the review process is well appreciated when they are requested to become the KAKENHI reviewer by JSPS or MEXT in the future. JSPS has registered the Principal Investigators' information including their names and affiliated research institutions in the Database of Review Committee Candidate (160,000 entries as of FY2024) and has utilized it so as to select the fair reviewers. In order to keep the information in this Database updated at all times, JSPS makes a request every year to update the registered information through your

affiliated research institutions. Kindly cooperate in updating the information in accordance with the Spending Rules for researchers (supplementary conditions or funding conditions).

IV. Instructions for Administrative Staff of Research Institution

1. Sharing the Purpose and Aim of the KAKENHI System

The KAKENHI provides a financial support for the creative and pioneering researches based on the original ideas of researchers.

Review of the submitted research proposals is conducted by the peer review process, in which researchers selected from their own community engage themselves in the assessment and reviewing of each research proposals on the basis of its scientific merit. The KAKENHI review process is based on the cooperation of more than 8,000 reviewers.

While the KAKENHI review process has been continually improved by, for instance, the introduction of new review methods from the FY2018 grant, the growing needs of KAKENHI have resulted in the number of new applications exceeding 90,000 in recent years. The workload on the researchers who are cooperating as reviewers is getting heavier along with the increase in the number of applications. Pressing concern is that if the burden on the reviewers keeps increasing to be excessive, it may seriously affect the reviewers' own research and educational activities, and may also result in deterioration of the quality of the review process. One of the possible factors for the recent increase in the application as one of their organizational activity indicators. Application for the KAKENHI application as one of their organizational activity indicators. Therefore, such action on the part of research institutions as to set quota to the constituent researchers is undesirable.

All research institutions are requested to share and disseminate within themselves the primary purpose and aim of the KAKENHI system afresh.

2. Issues to Be Completed Beforehand by the "Research Institution"

(1) Requirements as a "Research Institution" and Procedures for Designation and Change

In order to apply for the KAKENHI, a researcher needs to belong to a "Research Institution". Concerning the "Research Institution" cited here, the following four types of "Research Institution" have been designated as eligible in Article 2 of the Rules for the Handling of Grants-in-Aid for Scientific Research announced by the Ministry of Education, Culture, Sports, Science and Technology (MEXT).

- 1) Universities and inter-university research institutions
- 2) MEXT facilities and other institutions engaged in scientific research
- 3) Technical colleges
- 4) Institutions designated by the MEXT (see note as below)

(Note)

In order to become a Research Institution, institutions not falling under 1) to 3) first need to receive the designation by MEXT. Therefore, the institutions should consult with the Scientific Research Aid Division of the Research Promotion Bureau of the MEXT. If changes in one of the following items have been scheduled, institutions that have received the designation by MEXT and already have been recognized as a research institution should promptly report the content of these changes to the Scientific Research Promotion Division, Research Promotion Bureau, MEXT.

- (i) Abolition or dissolution of the research institution
- (ii) Name and address of the research institution, and name of the representative
- (iii) Matters concerning laws, regulations, endowment acts, and other rules that prescribe the purpose of establishment, the business content, and the internal organization of the research institution

Moreover, researchers who belong to such institutions should consider that, in order to conduct

research activities using the KAKENHI, the institutions should meet the requirements mentioned below.

< Requirements >

- (i) The research institution must authorize the research project for which the KAKENHI is granted, as its proper activity.
- (ii) The research institution must take responsibility for management and accounting of the KAKENHI delivered to its researcher(s).

(2) Ascertainment of the Eligibility to Apply of the Affiliated Researcher

The KAKENHI eligibility (stated below) of PI and Co-I(s) should be verified by their respective research institute by the time of proposal submission, and should be registered in e-Rad as a researcher who is qualified to apply for KAKENHI in the researcher's data.

A research institution must ensure that the applicant meets, in addition to meeting the eligibility to apply for Grant-in-Aid for Research Activity Start-up at the time of submitting their application, either of the eligibility criteria under the Application Requirements for Grant-in-Aid for Research Activity Start-up. (See III. Instructions for Prospective Applicants > 1. Procedures to be Completed Prior to Application > (1) Ascertainment of the Eligibility for KAKENHI Application)

(3) Submission of the "Background Description Regarding the Eligibility for Grant-in-Aid for Research Activity Start-up"

If a research institution has researchers who satisfy Condition B), before submitting (transmitting) their Grant-in-Aid proposals to JSPS, must first prepare "Background Description" and submit it to JSPS by May 2, 2025. The deadline for receipt of the form is 0:00 p.m.

In addition, if a research institution has researchers who satisfy Condition A) but were erroneously registered in e-Rad as "Eligible to Apply for Grants-in-Aid for Scientific Research" for reasons beyond their control (example: research institution failed to update their information in e-Rad) on September 18 2024, the research institution must prepare "Background Description" and submit it to JSPS before submitting (sending) the Grant-in-Aid proposals to JSPS.

Research institutions do not need to compile all the applying researchers on one form, and may submit the forms at any time before the deadline. However, the form will not be accepted after the deadline, so research institutions should ensure that their researchers know the deadline and the application requirements well in advance

- Note 1 If a person does not satisfy one of the eligibility conditions, the mere submission of "Background Description" will not qualify him/her for Research Activity Start-up support.
- Note 2 When the research institution submits "Background Description", Principal Investigators will be able to access the Electronic Application System. (which differ according to the date that form arrives at JSPS) For details, see "The Accessible Date to the Electronic Application System" referring to supplement.
- Note 3 For details on the procedure, etc. of the "Electronic Application System", please refer to the "Operation Manual" as shown below. <u>https://www-shinsei.jsps.go.jp/kaken/topkakenhi/syozoku_ka.html</u>

(4) Obtainment of an ID and a Password for the Researcher Belonging to the Research Institution

In order to apply for KAKENHI, researchers should perform the procedures, by accessing the "Electronic Application System", he/she should retain the ID and a Password for e-Rad. For this reason, the research institution should verify whether researchers who intend to apply have an ID and a Password, or not.

In the case where there is a researcher who intends to apply and who has neither ID nor Password, the research institution should provide him/her with an ID and a password in accordance with the following procedure.

URL : https://www.e-rad.go.jp/manual/for_organ.html

 In order to provide the researcher with an ID and a Password, the research institution needs to have an ID and a Password for use of the research institution. If the research institution has not yet obtained them, it should first of all download a registration form from the e-Rad Portal site, conduct a registration application in writing.

It takes approximately two weeks for the "ID and Password for use of the research

institution" to arrive after registration application the "Application for Use of the Electronic Application System".

Notes:

- *1: Please refer to "How to Apply for the Registration on Research Institutions." (<u>https://www.e-rad.go.jp/organ/entry.html</u>) on the e-Rad website for information on downloading an application form for the ID and password for e-Rad.
- *2: Research institutions that already obtained an ID and a password for e-Rad issued do not need to obtain it again.
- *3: It is not necessary to obtain an ID and a password for e-Rad for each research category of the KAKENHI.
- ii) After obtaining an ID and a Password for use of the research institution, the administrative staff in the research institution should provide an ID and a password to the researcher who is planning to apply as a Principal Investigator. The ID and password for each researcher is issued through registration of the researcher information in e-Rad. Please refer to the "Manual for Research Institutions" (for Research Institution Office Representatives and for Research Institution Office Workers: the section of "Procedures for Researchers") for information on the concrete way how to provide them.

Notes:

- *1: When providing the login ID and password, research institutions must make it known to researchers that they must strictly protect the login ID and password in order to prevent them from being disclosed to others.
- *2: Once the ID and the password for the researcher have been provided they can be used, even if the research institution changes.
- *3: Please be sure to obtain and use the latest version of the Operation Manual.
- iii) Please register (update) the researchers who are applying as a Principal Investigator or a Co-Investigator as "eligible to apply for KAKENHI" in e-Rad. If there are any corrections to be made to the registration details ("Affiliation", "Position", etc.) of those who have already been registered, please update them with the correct information

The first date that a researcher can access the electronic application system is based on the date that he/she obtains an e-Rad ID and password. For details, see "The Accessible Date to the Electronic Application System" referring to supplement.

However, since Research Proposal Document will not be accepted after the deadline for submission of Research Proposal Document, applicants should complete the registration (update) of the researcher information early, in order to have sufficient time to submit them. In order not to negatively affect the compilation of the applications within the research institution, when completing the applications, the research institution should perform the various procedures 76 (including the procedures within the research institution), positioning this specific procedure as one of the important procedures to be performed by the research institution.

(5) Submission of the "Self-Assessment Checklist on the Improvement of the System" Based on the "Guidelines on the Management and Audit of Public Research Funds at Research Institutions (Implementation Standards)"

When implementing the adopted research projects with KAKENHI grant the research institutions must comply with the content of the "Guidelines on the Management and Audit of Public Research Funds at Research Institutions (Implementation Standards)" (Adopted by the Minister of MEXT. Revised on February 1, 2021.) (hereinafter referred to as "Guidelines on Public Research Funds"), they must set up a system of the management and audit for implementing the public research funds and report the state of implementation and other matters by submitting a "Self-Assessment Checklist on the Improvement of the System based on the Guidelines on the Management and Audit of Public Research Funds at Research Funds at Research Institutions (Implementation Standards)".

Therefore, "those research institutions which Principal Investigators applying for KAKENHI in FY2025 belong to" and "those research institutions which Principal Investigators continuing research projects using KAKENHI are scheduled to belong to in FY2025" <u>must submit in accordance with the procedure and forms posted on the MEXT the "Self-Assessment Checklist on the Improvement of the System" to the Office of Competitive Research Funding Administration, Research Environment Division, Science and Technology Policy Bureau of the MEXT by May 8, 2025 (Thursday) via e-Rad. For details, refer to the website (URL: https://www.mext.go.jp/a_menu/kansa/houkoku/1324571.htm)</u>

If the "Self-Assessment Checklist on the Improvement of the System" has already been submitted in April 2024 or later, it is not necessary to submit it again.

Regarding research institutions that did not submit a "Self-Assessment Checklist on the Improvement of the System" during FY2024, <u>if they submit one on or after April 1, 2025, they should submit a "Checklist pertaining to the Current Status" for FY2025.</u>

<u>Researchers affiliated to a research institution which has not turned in the said checklist</u> <u>cannot receive the official grant decision.</u>

Note: When using e-Rad, ID and Password for the research institution are necessary

< Inquiries >

(Concerning forms and submission of Self-Assessment Checklist on the Improvement of the System)

Competitive Research Funding Administration, Research Environment Division, Science and Technology Policy Bureau, MEXT

Telephone: 03-5253-4111 (ext. 3866, 3827)

E-mail: kenkyuhi@mext.go.jp

URL: http://www.mext.go.jp/a_menu/kansa/houkoku/1324571.htm

(Concerning e-Rad)

Helpdesk of the Cross-ministerial Research and Development Management System (e-Rad) of MEXT

Telephone: 0570-057-060 (Navi Dial)

* Available from 9:00 to 18:00 except on Saturdays, Sundays, National Holidays and the New Year Holidays (from December 29 until January 3)

URL: https://www.e-rad.go.jp/contact.html* Time period when e-Rad is available

0:00 - 24:00 (in operation 24 hours a day, 365 days a year)

However even during the above-mentioned time period, it may happen that the operation of e-Rad is

disrupted or suspended, when maintenance and inspection is being carried out. If the operation is scheduled to be disrupted or suspended, this will be announced beforehand on the portal site.

(6) Submission of the "Checklist Pertaining to the Current Status" Based on the "Guidelines for Responding to Research Misconduct"

When implementing the research projects with KAKENHI grant the research institutions must comply with the content of the "Guidelines for Responding to Research Misconduct" (Adopted by the Minister of MEXT on 26 August 2014) (hereinafter referred to as "Guidelines on Research Misconduct") and submit a "Checklist Pertaining to the Current Status based on the Guidelines for Responding to Research Misconduct" (hereinafter referred to as "Checklist on the Research Misconduct").

Therefore "those research institutions which the Principal Investigators applying for KAKENHI in FY2025 belong to" and "those research institutions which Principal Investigators continuing research projects using KAKENHI are scheduled to belong to in FY2025" <u>must submit in</u> <u>accordance with the procedure and forms posted on MEXT the "Checklist on the Research Misconduct" to the Office for Research Integrity Promotion, Research Environment</u> <u>Division, Science and Technology Policy Bureau of the MEXT by May 8, 2025 (Thursday)</u>

via e-Rad. For details, refer to the website (URL:

https://www.mext.go.jp/a menu/jinzai/fusei/1420301 00005.html) If the "Checklist on the Research Misconduct" has already been submitted in April 2024 or later it is not necessary to submit it again.

Regarding research institutions that did not submit a "Checklist Pertaining to the Current Status based on the Guidelines for Responding to Research Misconduct" during FY2024, if they submit one on or after April 1, 2025, they should submit a "Checklist pertaining to the Current Status" for FY2025.

<u>Researchers affiliated to a research institution which has not turned in the said checklist</u> <u>cannot receive the official grant decision.</u>

* <u>Please note that while the "Checklist on the Research Misconduct" is the same in using e-Rad</u> for submission with the "Self-Assessment Checklist on the Improvement of the System", the <u>submission destination is different. Both checklists must be submitted.</u>

Note: When using e-Rad, an ID and a Password for the research institution are necessary.

< Inquiries >

(Concerning the format and submission of Checklist on the Research Misconduct)

* Differs from the contact information for Self-Assessment Checklist on the Improvement of the System.

Office for Research Integrity Promotion, Research Environment Division, Science and

Technology Policy Bureau, MEXT

Telephone: 03-6734-3874

E-mail: jinken@mext.go.jp

URL : <u>https://www.mext.go.jp/a_menu/jinzai/fusei/index.htm</u>

(Concerning e-Rad)

Helpdesk of the Cross-ministerial Research and Development Management System (e-Rad) of MEXT

Telephone: 0570-057-060 (Navi Dial)

* Available from 9:00 to 18:00 except on Saturdays, Sundays, National Holidays and the New Year Holidays (from December 29 until January 3)

URL: https://www.e-rad.go.jp/contact.html

* Time period when e-Rad is available 0:00 - 24:00 (in operation 24 hours a day, 365 days a year)

However even during the above-mentioned time period, it may happen that the operation of e-Rad is disrupted or suspended, when maintenance and inspection is being carried out. If the operation is scheduled to be disrupted or suspended, this will be announced beforehand on the portal site.

(7) Implementation of a Research Ethics Education Coursework Based on the "Guidelines on Research Misconduct", etc.

Principal Investigators must fulfill the obligations described below prior to submitting the formal application for grant delivery if you are starting a new research project, and prior to submitting the formal application for grant delivery or request for payment if you are taking part in an ongoing research project that is scheduled to continue into FY2025.

- Either to read through and learn the teaching materials by oneself concerning the research ethics education coursework such as "For the Sound Development of Science -The Attitude of a Conscientious Scientist-" (JSPS Editing Committee "For the Sound Development of Science"), the "e-Learning Course on Research Ethics (eL CoRE)", the "APRIN e-learning program (eAPRIN)", etc., or to attend a lecture on research ethics conducted by research institutions based on the "Guidelines on Research Misconduct."
- To understand thoroughly and to exercise the proper research practices in conducting their research, from amongst the contents of both the Statement "Code of Conduct for Scientists -Revised Version-" by the Science Council of Japan and the booklet "For the Sound Development of Science -The Attitude of a Conscientious Scientist-" issued by JSPS

To that end, each research institution is requested to disseminate broadly what the researchers should consider, in conducting of their researches as well as carrying out an ethics education in research training session based on the "Guidelines on Research Misconduct"

(8) On the Submission of the Report on the Research Achievements

The research institution to which researchers belong has to collect and submit the report on the research achievements. If the research institution has failed, without justifiable reason, to submit the report on the research achievements at the end of the research period, it may happen that it is treated as indicated below. Therefore, it is the responsibility of the representative of the research institution to ensure that the report on the research achievements is submitted without fail.

• No KAKENHI will be delivered to researchers who do not submit the report on the research achievements at the end of the research period, without good reason. Moreover, it may happen that the official grant decision to the researcher is cancelled, that an order to return the grant is issued, or that the information such as the name of the research institute the said researcher belongs to is disclosed in public.

Furthermore, if researchers have failed to submit the scheduled report on the research achievements without justified reason, then execution of other KAKENHI implemented in the same fiscal year will be suspended.

(9) Obtaining Sufficient Knowledge about the Contents of the Application Procedures

The research institution should beforehand disseminate the contents of the Application Procedures to all the researchers to it. JSPS would especially like to request the dispersion of information on the items listed in the Application Procedures and the submission deadlines of Research Proposal Document, in order to avoid potential misunderstandings.

(10) Ensuring Research Integrity Among Research Institutions

In order to promote the creation of science, technology, and innovation in Japan, we must continue to strengthen overseas joint research with various partners based on the principle of open science. At the same time, in light of newly emerging risks as a consequence of the globalization and openness of research activities in the recent years, there is a growing concern that the values of openness and transparency which constitute the basis of the research environment will be lost and the danger of researchers unknowingly being trapped in conflict of interest or conflict of responsibilities. In such climate, it is vital for our country to build a globally reliable research environment to protect the values that constitute the basis of research environment while encouraging necessary global collaboration and international exchanges.

Therefore, we ask research institutions to undertake initiatives to ensure research integrity and to make efforts to achieve a common understanding among relevant parties in accordance with the "Policy on Measures to Ensure Research Integrity Against New Risks as a Consequence of the Globalization and Openness of Research Activities (April 27, 2021, Decision of Council for Science, Technology and Innovation).". Research institutions may be requested, as necessary, to provide information on the status of measures for securing research integrity.

 "Policy on Measures to Ensure Research Integrity Against New Risks as a Consequence of the Globalization and Openness of Research Activities (April 27, 2021, Decision of Council for Science, Technology and Innovation)"
 URL: https://www8.cao.go.jp/cstp/tougosenryaku/integrity_housin.pdf

(11) Development of Security Export Control Systems

Starting from research projects to be funded in FY2025, JSPS will confirm at the time of formal application for grant delivery, in case affiliated researchers plan to provide cargo and technologies subject to export controls under the Foreign Exchange and Foreign Trade Act (Act No. 228 of 1949) (hereinafter referred to as "Foreign Exchange Act"), whether their affiliated institutions have established a security export control system. The confirmation regarding the establishment of such system will be made with registration details on the "research institution information" (establishment of a security export control system) in e-Rad. Research institutions should develop a system necessary

to properly conduct the relevant affairs and make sure to register the status of establishment of a security export control system on the "research institution information" screen in e-Rad.

 Reference: (Materials for Research Institution Administrative Staff) Updates to the Features of the Cross-ministerial R&D Management System (e-Rad), p. 7.
 URL: https://www.e-rad.go.jp/dl_file/20240131_ReleaseForJimuBuntansha.pdf

See "V. Other Relevant Issues 7. Security Export Control Policy (Coping with Technology Leakage Overseas)" for details of Security Export Control Systems.

3. Issues that Need to Be Verified When Compiling the Application Forms (Preparing the Research Proposal Document)

The contents of the Research Proposal Document should be verified in each research institution, and all the Research Proposal Document should be submitted to JSPS together. When doing so, special attention should be paid to the following points.

(1) Ascertainment of the Eligibility for KAKENHI Application

<u>It should be verified whether the Principal Investigator listed in the Research Proposal</u> <u>Document are researchers who meet the requirements that are stipulated in the Application</u> <u>Procedures (see page 34-40), and also whether the researcher information is registered in</u> <u>e-Rad as "Eligible to Apply for KAKENHI"</u>.

Moreover, it should be verified certainly that they must not be categorized as ineligible for grant acquisition in FY2022 in KAKENHI and other competitive funds, as a penalty for their improper grant spending, fraudulent grant acquisition, or research misconduct.

(2) Confirmation of the Researcher Information Registered in the e-Rad System

Regarding the registration (update) of the researcher information necessary when applying, the administrative staff in the research institution to which the researcher belongs should perform the procedures using e-Rad.

Moreover, even though applicant has already been included in the researcher list of the research institution, if there is any item such as the department placed, the position, or others that needs to be corrected, the applicant's information on the researcher list should be corrected.

* Registration of researcher information in e-Rad and linkage to the electronic application system regarding the implementation of research integrity measures Starting from the FY2025 call for proposals, research integrity information registered in e-Rad will be linked to the electronic

application system, and you will be requested to enter the necessary information in your Research Proposal Document based on the e-Rad registered research integrity details.

<u>Please note, in particular, that application cannot be made if the Principal Investigator</u> and/or Co- Investigators have not registered in e-Rad the status of pledge regarding their research integrity information for their affiliated institution. Therefore, please inform researchers to make sure to confirm the registration status of the relevant information in e-Rad. For details, please check carefully the Supplement to the Application Procedures for Grants-in-Aid for Scientific Research.

(3) Verification with the Principal Investigator

The research institution should verify whether the Principal Investigator who have been listed in the Research Proposal Document have completed the Research Proposal Document, after confirming the description in the column "II. Call for Proposals" in this Application Procedures for Grants-in-Aid for Scientific Research.

(4) Verification of the Application Forms

It should be verified whether the application format is in conformity with the prescribed format. As for the forms to be uploaded, in particular, verify not only the total number of pages but also the number of pages instructed for each column is met. (see "III. Instructions for Prospective Applicants 3. Preparation of the KAKENHI Application Form (Research Proposal Document), etc. (3) 4.")

4. Submission and Other Matters of the Research Proposal Document (Preparing the Research Proposal Document)

- (1) The research institution should access the "Electronic Application System", using the ID and the password for e-Rad, obtain the information of the Research Proposal Document (PDF files) that the Principal Investigator(s) prepared, and verify their contents and other matters.
- (2) The research institution should perform the "approval" process on all the Research Proposal Document (PDF files) that has no mistakes in their contents. Only those Research Proposal Documents whose application status changed to "Being accepted by JSPS" by the submission deadline will have been correctly submitted to JSPS.
- (3) After the Research Proposal Documents (PDF files) are submitted (sent) to JSPS, applicants can still draw back their Research Proposal Documents for necessary corrections and resubmission prior to the submission deadline. However, <u>DO NOT draw back the Research Proposal</u>

Documents on the date of the deadline. The System will be very busy and you may not be able to resubmit the application in time.

(4) Research Proposal Documents (PDF files) that have been approved and submitted (sent) by the research institution cannot be corrected or otherwise revised after the submission deadline.

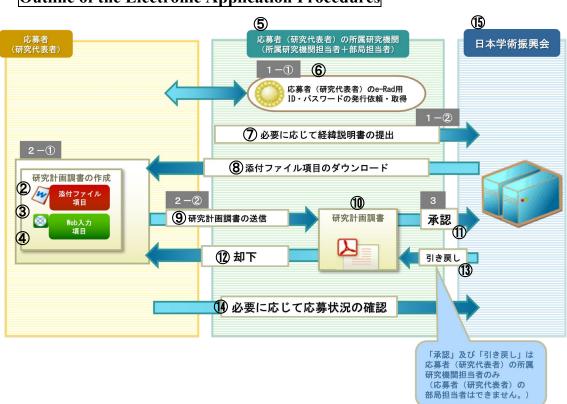
[The deadline for the submission of the Research Proposal Document is]

May 8, 2025 (Thursday), 4:30 pm (This deadline should be strictly observed.)

Note 1: Research Proposal Document that is submitted (sent) after this deadline will not be accepted for any reason. Therefore, the documents should be submitted (sent) well in advance.

Note 2: After the submission (sending) of the application documents, it is not possible to make corrections or to re-submit them.

(5) The ID and the password which are used in the e-Rad are designed to verify the individual. Therefore, the handling and administration of them should be done carefully when carrying out the application procedures. Moreover, an outline of the procedures for electronic application can be found below. However, for details on the operating environment, procedure, etc. of the "Electronic Application System", please refer to the "Operation Manual" at the website below. URL: <u>https://www-shinsei.jsps.go.jp/kaken/topkakenhi/shinsei_ka.html</u>



Outline of the Electronic Application Procedures

"Approve" or "Draw Back" of the Research Proposal Document can only be performed by the administrative staff of the applicant's (PI's) affiliated research institution (the applicant's (PI's) department staff cannot)

- ① Applicant(Principal Investigator)
- 2 Preparation of Research Proposal Document
- ③ Forms to be uploaded
- ④ Items to be entered in the website
- (5) The research institution to which the applicant (Principal Investigator) belongs (Administrative staff in the research institution + Administrative staff in the department)
- (6) Request for issue and acquisition of the applicant's (Principal Investigators') ID and password for e-Rad
- ⑦ Background Description
- (8) Downloading of the forms to be uploaded
- (9) Sending the Research Proposal Document
- 1 Research Proposal Document
- 1 Approval
- 12 Rejection
- ③ Only the administrative staff in the research institution to which the applicant (Principal Investigator) belongs (The administrative staff in the department of the applicant (Principal Investigator) cannot make an approval.)

① Confirmation of the state of the application as necessary③ JSPS

V. Other Relevant Issues

1.Support through Platforms for Advanced Technologies and ResearchResources

In order to respond effectively to the diverse needs of researchers of KAKENHI research projects, the Grant-in-Aid for Transformative Research Areas (A) - Platforms for Advanced Technologies and Research Resources forms a resource and technical support platform for research (hereinafter referred to as "Platform") under the close cooperation of relevant institutes with inter-university research institutes and Joint Usage/Research Centers, or International Joint Usage / Research Center as core institutes. Together with providing technical support towards individual research projects and providing advanced problem solving methods to researchers, it provides an integral promotion of cooperation between researchers, interdisciplinary integration, and human resources development. Applications for technical support, etc. are open for each of the Platforms below where it concerns research projects carried out through KAKENHI. Researchers desiring technical support, etc. from each of the Platforms are requested to check their respective websites, etc. and actively apply.

* "Technical Support, etc." points to the sharing of equipment with researchers from a wide range ofresearch fields, technical support and the collecting, conservation, and providing of resources (documents, data, experiment samples, specimen, etc.), and support for conservation techniques, etc.

"Advanced Technology Support Platform Program" has scientific value and an advanced nature through the combination of multiple facilities and equipment, and provides shared use of equipmentand technical support to researchers in a wide variety of research areas.

"Research Platform Resource Support Program" collects, conserves, and supplies the resources thatare the basis of research (documents, data, experiment samples, specimen, etc.) and also conducts support for conservation techniques, etc.

Area	Platform Name	Core Institution	Support Function
Advanced	Platform of Advanced	National Institute for	Advanced technical support
Technology	Bioimaging Support (*)	Physiological Sciences	and user training for :
Support		National Institute for	·Light microscopy
Platform		Basic Biology	·Electron microscopy
Program			· Magnetic resonance imaging
			· Imaging analysis
	Platform of Advanced	The Institute of Medical	Support for constructing
	Animal Model Support(*)	Science The University	animal models, Support for
		of Tokyo	pathological analysis, Support
			for physiological analysis,
			and Support for molecular
			profiling

	Platform for Advanced	National Institute of	Advanced genome analysis
	Genome Science (*)	Genetics	(de novo genome sequencing;
			re-sequencing for genome
			variation detection; analysis
			of transcriptome, epigenome
			and metagenome; ultra-high
			sensitivity analysis for single
			cells, single molecules, etc.;
			big-data analysis and
			advanced bioinformatics; by
			using of the latest facilities
			and technologies)
Area	Platform Name	Core Institution	Support Function
Research	Platform of Supporting	The Institute of Medical	Support for cohort study
Platform	Cohort Study and	Science, The University	using bioresources, Support
Resource	Biospecimen Analysis (*)	of Tokyo	for maintaining and utilizing
Support			human brain resources, and
Program			Support using biospecimen
	Supply Platform of	Research Center	Supply short-lived
	Short-lived	for Nuclear	radioisotopes
	Radioisotopes for	Physics, Osaka	produced by accelerators for
	Fundamental	University	fundamental research in
	Research		various
			scientific fields.

Also, Committee on Promoting Collaboration in Life Sciences that functions as a general information point and coordinator across the four Platforms marked with an asterisk (*) above is set up. (Core Institution: The Institute of Medical Science, The University of Tokyo)

Each Platform's website can be found in the links on the site below: URL : <u>https://www.mext.go.jp/a_menu/shinkou/hojyo/mext_01901.html</u>

2. Promotion of the Shared Use of Research Equipment

In "Reform of Competitive Research Funds: Towards a Sustained Output of Research Achievements (Interim Summary)" (June 24, 2015, Competitive Research Fund Reform Review meeting) it was decided that, when the original research objectives were fully achieved, versatile and large equipment should, in principle, be shared.

Furthermore, the government also addresses the need to promote the implementation and common use of research facilities and equipment, to establish a framework for the introduction, renewal, and utilization of organizational research facilities (core facilities), and to formulate and publicize policies for the internal and external sharing of research facilities and equipment in the Comprehensive Package to Strengthen Research Capacity and Support Young Researchers (January 23, 2020, Council for Science, Technology, and Innovation) and the Sixth Science, Technology, and Innovation Basic Plan (Cabinet Decision on March 26, 2021).

With this in mind, when purchasing equipment with competitive research funds, please actively work on the use of equipment purchased with other research funds, and the purchase and shared use of equipment from several research funds where it concerns especially large and versatile equipment. Please also make ensure that sharing is possible within the rules of the said competitive research funds, and no obstacle is made to the execution of the research project.

- "Reform of Competitive Research Funds: Towards a Sustained Output of Research Achievements (Interim Report)" (June 24, 2015 Competitive Research Fund Reform Review meeting) URL: <u>https://www.mext.go.jp/b_menu/shingi/chousa/shinkou/039/gaiyou/1359306.htm</u>
- "The Sixth Science, Technology, and Innovation Basic Plan" (Cabinet Decision on March 26, 2021)
 URL: <u>https://www8.cao.go.jp/cstp/kihonkeikaku/6honbun.pdf</u>
- "Unified Rules for Administrative Procedures, Etc. Pertaining to Competitive Research Funds" (Agreement of the Liaison Meeting of Related Offices and Ministries on Competitive Research Funds. March 5, 2021; revised May 24,2023) URL: https://www8.cao.go.jp/cstp/compefund/toitsu_rule_r50524.pdf

3. Promotion of the 'Dialogue on Science and Technology with Citizens' (A Basic Approach Policy)

In the "Promotion of the 'Dialogue on Science and Technology with Citizens' (A Basic Course of Action)" (Adopted by the Minister of State for Science and Technology Policy and the Executive Members of the Council for Science and Technology Policy on June 19, 2010) which was compiled in June 2010, the activity in which researchers explain the content and achievements of their research activities to society and citizens in an easy-to-understand form is placed in the above-mentioned "Dialogue on Science and Technology with Citizens". Researchers who have received an allotment of public research funds amounting more than 30 million yen per year per case are requested to positively work on the "Dialogue on Science and Technology with Citizens". Universities and other research institutions are also requested to make positive efforts in order for researchers who have received public research funds to ensure the proper implementation of the "Dialogue on Science and Technology with Citizens", for example, by setting up support systems. For KAKENHI, there is the question "Are you positively trying to publicize and disseminate the research content and research achievements?" especially in interim assessment of Scientific Research on Innovative Areas (Research in a Proposed Research Area) and Grant-in-Aid for Transformative Research Areas(A). Therefore, based on the above-mentioned basic policy,

researchers should disseminate the achievements of research funded with KAKENHI to society and citizens in an even more positive way.

4. Cooperation with the National Bioscience Database Center

The National Bioscience Database Center (URL: <u>https://biosciencedbc.jp/</u>) has been established in the Japan Science and Technology Agency (JST, a national research and development agency), in order to promote the integrated use of databases in the area of life science that have been created by various research institutions and other institutions.

This Center spurs the active participation of related institutions, and based on four pillars, namely (1) the planning of strategies, (2) creation and operation of portal websites, (3) research on and development of core technology for the integration of databases and (4) the promotion of the integration of biotechnology-related databases, it is promoting projects aiming at the integration of databases in the area of life science. In this way, through wide sharing and utilization of the research achievements in the area of life science produced in Japan in the researcher community, the Center aims at invigorating overall research in the area of life science, including research and development connected to basic research and industrial applied research.

JSPS would like to request researchers to cooperate by providing to the Center copies of raw data related to achievements published in research papers and other output in the area of life science, or copies of created open databases.

Moreover, the copies provided will be able to be utilized on a non-exclusive basis as reproductions, alterations, or in other necessary forms. JSPS would like researchers to understand in advance that, in response to the requests of the institutions that received copies, it would also like request researchers to cooperate by providing all the information necessary for utilizing the copies. Furthermore, the National Bioscience Database Center has developed guidelines for data on humans, in order to promote the sharing and use of data related to research in the area of life science, with due considerations to the protection of personal information.

NBDC human data sharing guidelines URL: https://humandbs.dbcls.jp/guidelines/data-sharing-guidelines

5. Inter-University Bio-Backup Project

The purpose of the Inter-University Bio-Backup Project (IBBP) is to "back up" biological genetic resources, which are indispensable research resources in various research areas, and to avoid damage

or loss of biological genetic resources due to unforeseen accidents, disasters, etc. The project newly commenced from 2012.

In the National Institute for Basic Biology of the Inter-University Research Institute Corporation National Institutes of Natural Sciences, which is the core of this project, the Inter-University Bio-Backup Project for Basic Biology (IBBP Center, URL: <u>http://www.nibb.ac.jp/ibbp/</u>) has been established as a backup center for biological genetic resources. It is equipped with the newest equipment necessary for the backup of biological genetic resources.

Any researcher who belongs to a university or a research institution may apply for storage. Biological genetic resources that can be stored in the IBBP Center are samples that can be proliferated (amplified) or cryopreserved (for vegetable seeds, the refrigeration or deep-freezing preservation condition needs to be definite), and being not pathogenic is also a condition. Since backup is provided free of charge, researchers should make use of the IBBP Center.

6. National BioResource Project

The National BioResource Project (NBRP) strategically collects and preserves important bioresources that are the basic and foundation of life science research at the core bases of this project and provides them to universities and research institutes, thereby contributing to the development of life science research in Japan. In the future, in order to contribute to the development of life science research in Japan, it is necessary to continually collect useful bioresources.

For that matter, please deposit (*) available bioresources among bioresources developed by Grant-in-Aid for Scientific Research (limited to the bioresource targeted for NBRP). Please cooperate with the NBRP collecting activities.

It is recommended to utilize the resources already collected in NBRP from the viewpoint such as efficient implementation of research.

(*) Deposit: This is a procedure to approve the use (preservation/provision) in this project without transferring the various rights related to the resource. By specifying specific conditions in the deposit agreement, you can add usage conditions such as restrictions on usage and quotation of articles to users.

List of NBRP core bases representative agencies URL: <u>https://nbrp.jp/resource/</u>

7. Security Export Control Policy (Coping with Technology Leakage Overseas)

In implementing various research activities including research projects funded with KAKENHI, research institutions are asked to take systematic measures to ensure that the research achievements which have potential risks of being diverted to military use are not transferred to WMD developers, terrorist organizations, or people carrying out other dubious activities.

In Japan, export controls (*1) are carried out under the Foreign Exchange and Foreign Trade Act (Act No. 228 of 1949) (hereinafter referred to as "Foreign Exchange Act"). Therefore, in principle, in order to export (provide) cargo and technology regulated by the Foreign Exchange Act, it is necessary to obtain permission of the Minister of Economy, Trade and Industry. It is reminded that KAKENHI grantees must observe the Foreign Exchange Act as well as other laws, guidelines and circular notices issued by the government.

(*1) Japan's Security Export Control System established on the basis of international agreements mainly consists of (i) "List rules" which require permission of the Minister of Economy, Trade and Industry in principle when exporting cargo or providing technology that carry specifications and/or functions higher than certain levels, such as carbon fiber and numerically controlled machine tool etc., and (ii) "Catch-all regulation" which requires permission of the Minister of Economy, Trade and Industry when exporting cargo or providing technology that are not subject to regulation under the List rules but do fall under certain regulatory requirements (application requirements, consumer requirements and/or informed requirements).

Please note in particular that not only export of cargo but also provision of technology will be subject to the regulation by the Foreign Exchange Act. When providing a "List rules" technology to non-residents or providing it in a foreign country, prior permission for provision is required. "Provision of technology" includes not only providing technical information such as design drawings, specifications, manuals, samples, and prototypes via storage media such as paper, mail, CD, USB memory, but also providing work knowledge and technical assistance at seminars through technical instruction, skill training, etc. Researchers should be aware that there may be case in which technologies subject to regulation by the Foreign Exchange Act are involved when mentoring foreign students and/or joint research activities with oversea groups. Please also bear in mind that the provision of technologies, etc. acquired in KAKENHI-funded projects or the provision of technologies, etc. already in possession with the use of KAKENHI may also be subject to restrictions.

Pursuant to the Foreign Exchange Act, exporting "List Rules" cargo or providing "List Rules" technology to a foreign country requires the development of a security export control system (*2). Therefore, JSPS may, by the time of official grant decision, confirm whether the provision of cargo and technology subject to export controls under the Foreign Exchange Act is planned in KAKENHI funded projects and whether a control system has been established if there is an intent to provide them.

In case there is an intent to provide them but no control system has been established, JSPS requires the development of such system by the time of the provision or by the end of the relevant project, whichever is earlier. JSPS may also report the status of confirmation to the Ministry of Economy, Trade and Industry at its request. In addition, any violation of the Foreign Exchange Act regulations with regard to technologies, etc. acquired in KAKENHI-funded projects may result in no official grant decision being made or cancellation of grant delivery.

(*2) Exporters or persons conducting similar transactions are obliged to observe "compliance standards for exporters and persons conducting similar transactions" as prescribed in Article 55-10, Paragraph 1 of the Foreign Exchange Act. The security export control system as referred here means an internal control system of an organization to prevent illegal export, etc. through proper export of "List Rules" cargo or proper provision of "List Rules" technology to a foreign country, based on the control system prescribed in the "compliance standards for exporters and persons conducting similar transactions."

Details of the security trade control are published on the websites including the Ministry of

Economy, Trade and Industry website.

- OMinistry of Economy, Trade and Industry: Security Trade Control (General) URL: <u>http://www.meti.go.jp/policy/anpo/</u>
- OMinistry of Economy, Trade and Industry: "Handbook on Security Trade Control" URL: <u>https://www.meti.go.jp/policy/anpo/seminer/shiryo/handbook.pdf</u>
- Center for Information on Security Trade Controls URL: <u>http://www.cistec.or.jp/index.html</u>
- Guidance for the Control of Sensitive Technologies for Security Export for Academic and Research Institutions 3rd Edition" URL:<u>https://www.meti.go.jp/policy/anpo/law_document/tutatu/t07sonota/t07sonota_jishukanri 03.pdf</u>

8. Strict Implementation of United Nations Security Council Resolution 2321

In the face of the nuclear test by Democratic People's Republic of Korea (DPRK) in September 2016 and repeated launches of ballistic missiles, the United Nations Security Council adopted the United Nations Security Council Resolution 2321 on November 30, 2016 (ET, New York) deciding to impose additional and stronger sanctions on DPRK. In this regard, MEXT issued a letter of request entitled, "Strict Implementation of United Nations Security Council Resolution 2321 (Request)" (28 受文科際第 98 号) to relevant organizations as of February 17, 2017.

"Scientific and technical cooperation" as set forth in Paragraph 11 in the main text of the Resolution not only includes technologies regulated by the Foreign Exchange and Foreign Trade Act of Japan, but all cooperative activities except for medical exchanges. Therefore, it is critical that research institutions exercise strict implementation of the Resolution when conducting various research activities including said sponsored research.

The UNSC Resolution 2321 can be found at:

 MOFA: United Nations Security Council Resolution 2321, Japanese translation (MOFA Notice No. 463 (issued on December 9, 2016) URL:https://www.mofa.go.jp/mofaj/files/000211409.pdf

9. Improvement of Treatment of Students in Doctoral Course

"The 6th Science, Technology, and Innovation Basic Plan (Cabinet Decision on March 26, 2021)" addresses the need to enhance financial support for doctoral students in particular, in order to attract outstanding talents from home and abroad, and calls for research institutions to provide greater employment opportunities for doctoral students as research assistants (RAs) and to improve their treatment. To this end, the Basic Plan, for example, sets a numerical target to triple the number of doctoral students to receive subsidy roughly equivalent to their living cost (which is equivalent to about 30% of students enrolling in doctoral courses to receive subsidy).

Furthermore, the "Guideline on Recruiting and Fostering Postdoctoral Fellows, Etc. (December 3, 2020, Committee on Human Resources, the Council for Science and Technology)" states that doctoral students "are students, but at the same time, also researchers in a certain way, and therefore it is the key responsibility of universities that foster researchers to provide the environment for research activities and to ensure proper treatment...It is of particular importance to treat them based on appropriate assessment of their contribution, by establishing compensations that meet the nature and content of their jobs and paying hourly wages according to the actual work hours under the proper labor management...When submitting applications to competitive research funds and other grants, universities and institutions must record the expenditures necessary to employ RAs as direct expense, and revise the school rules as necessary to make sure that the RAs are paid proper compensations."

Based on the above, when employing a doctoral student as RA, etc. for a KAKENHI project, set the hourly wage according to the nature and content of his/her job based on the standard of each

research institution and pay the wage according to the actual work hours under the proper labor management.

Furthermore, when employing a doctoral student as RA, etc., be mindful not to overload him/her with excessive work hours and make sure that he/she can maintain a good balance between the work and his/her own research and study hours.

10. Securing University Research Administrators (URAs) and other Management Personnel

The Sixth Science, Technology, and Innovation Basic Plan (Cabinet Decision on March 26, 2021) identifies the importance of efforts to improve the security of professional quality and treatment so that the positions of University Research Administrators (URAs) and other management personnel will become attractive. The Comprehensive Package to Strengthen Research Capacity and Support Young Researchers (January 23, 2020, Council for Science, Technology, and Innovation) also addresses the need to establish career paths for management personnel, URAs, engineers, etc. In light of these initiatives, research institutions are encouraged, to the extent possible, to secure certain lengths of fixed-term employment (of about five years or longer) for URAs and other management personnel (who are currently hired or will be hired newly by research institutions) when engaging them in the management of KAKENHI research programs, by using not only KAKENHI, but also funds such as indirect expenses and basic costs under other external funds, and donations, for example.

In addition, please make active efforts to provide support in securing career paths for these management personnel, for example, enrolling them in URA training, etc. Also consider utilizing the indirect expenses for such efforts.

11. Promoting Efforts to Support Gender Equality and Foster Human Resources

The Science, Technology, and Innovation Basic Plan (Cabinet Decision on March 26, 2021), the Basic Plan for Gender Equality (Cabinet Decision on December 25, 2020), and Education and Human Resource Development Policy Package toward the Realization of Society 5.0 (Decision by the Council for Science, Technology and Innovation on June 2, 2022) aim to create research environments that make it easier for both men and women to continue their research activities when life events occur, such as childbirth, childcare, and nursing care, as well as to promote the appointment of excellent female researchers as project leaders, among other measures. Another goal is to increase the proportion of female students in middle and high school who advance to master's and doctoral courses especially in the science and engineering fields through initiatives to communicate the fascination of these areas to female students in middle and high school, their parents, and their teachers, thereby overcoming the current situation with a low percentage of female students going to doctoral courses in natural science and increasing the number of potential bearers of knowledge in Japan.

In addition, if due consideration is not paid to sexual differences in research and development processes that require such consideration, it may cause inappropriate impact at the stage of social implementation. As such, research and technological development that properly give attention to sexual differences, such as those in physique and the structure and functioning of bodies, are needed. In light of these points, in KAKENHI-funded projects, JSPS will take into account efforts to promote the participation and advancement of female researchers and expand the range of human resources that will play a role in science and technology in the future.

To advance science, it is important to secure an environment that allows diverse researchers to exercise their potentials and advance their activities. In March 2020, JSPS established the "Basic Guidelines for Promoting Gender Equality in JSPS Programs" to promote gender equal participation in areas of science.

As part of this initiative, JSPS opened a new website CHEERS! (URL: <u>https://cheers.jsps.go.jp/</u>) in an aim to support the diverse careers of all researchers, such as balancing research and life events. JSPS will release useful information on, for example, how to balance research and childcare and actively carry out various initiatives through CHEERS! to create a network among researchers. Researchers are encouraged to visit the website.

12.About HIRAMEKI☆TOKIMEKI SCIENCE –Welcome to a University Research Lab– Science That Inspires and Inspirits

The "HIRAMEKI TOKIMEKI SCIENCE" program is designed to offer opportunities to gain a deeper understanding of the meaning of science and its roles in daily life to society, as part of efforts to give back to society and promote KAKENHI-funded research achievements.

Based on their KAKENHI-funded academic studies, researchers themselves communicate the fun and fascination of scientific pursuit directly to the younger generation in an easy-to-understand manner. They thus instill intellectual curiosity and a rich sense of creativity in pupils in their fifth and sixth years of elementary school and students in middle and high school, who will go on to shoulder the future of Japan. As we are looking for such experience-based programs, regardless of areas of research, please take advantage of this opportunity.

URL : <u>https://www.jsps.go.jp/j-hirameki/</u>

Attached Table 1

Grants-in-Aid for Scientific Research-KAKENHI-"Research Activity Start-up FY2025" Review Section Table

	Review Section
0101	Philosophy, art, and related fields
0102	Literature, linguistics, and related fields
0103	History, archaeology, museology, and related fields
0104	Geography, cultural anthropology, folklore, and related fields
0105	Law and related fields
0106	Political science and related fields
0107	Economics, business administration, and related fields
0108	Sociology and related fields
0109	Education and related fields
0110	Psychology and related fields
0201	Algebra, geometry, analysis, applied mathematics, and related fields
0202	Condensed matter physics, plasma science, nuclear engineering, earth resources engineering, energy engineering, and related fields
0203	Particle-, nuclear-, astro-physics, and related fields
0204	Astronomy, earth and planetary science, and related fields
0301	Mechanics of materials, production engineering, design engineering, fluid engineering, thermal engineering, mechanical dynamics, robotics, aerospace engineering, marine and maritime engineering, and related fields
0302	Electrical and electronic engineering and related fields
0303	Civil engineering, social systems engineering, safety engineering, disaster prevention engineering, and related fields
0304	Architecture, building engineering, and related fields
0401	Materials engineering, chemical engineering, and related fields
0402	Nano/micro science, applied condensed matter physics, applied physics and engineering, and related fields
0403	Biomedical engineering and related fields
0501	Physical chemistry, functional solid state chemistry, organic chemistry, polymers, organic materials, biomolecular chemistry, and related fields
0502	Inorganic/coordination chemistry, analytical chemistry, inorganic materials chemistry, energy-related chemistry, and related fields
0601	Agricultural chemistry and related fields
0602	Agricultural and environmental biology and related fields
0603	Forestry and forest products science, applied aquatic science, and related fields
0604	Agricultural economics and rural sociology, agricultural engineering, and related fields

	Review Section
0605	Veterinary medical science, animal science, and related fields
0701	Biology at molecular to cellular levels, and related fields
0702	Biology at cellular to organismal levels, and related fields
0703	Biology at organismal to population levels and anthropology, and related fields
0704	Neuroscience, brain sciences, and related fields
0801	Pharmaceutical sciences and related fields
0802	Biomedical structure and function and related fields
0803	Pathology, infection/immunology, and related fields
0901	Oncology and related fields
0902	General internal medicine and related fields
0903	Organ-based internal medicine and related fields
0904	Internal medicine of the bio-information integration and related fields
0905	Surgery of the organs maintaining homeostasis and related fields
0906	Surgery related to the biological and sensory functions and related fields
0907	Oral science and related fields
0908	Society medicine, nursing, and related fields
0909	Sports sciences, physical education, health sciences, and related fields
1001	Information science, computer engineering, and related fields
1002	Human informatics, applied informatics and related fields
1101	Environmental analyses and evaluation, environmental conservation measure and related fields

Attached Table 2 Grants-in-Aid for Scientific Research-KAKENHI-"Research Activity Start-up FY2025" Review Section Table

This chart gives examples of the content in each screening category. Please check it when choosing the category in which you want your application to be screened. Examples are provided for multiple screening categories.

	Review Section	
Examples of related research content	corresponding	
Examples of related research content	Examples of related	
	research content	
Area studies-related	0104、0106	
Tourism studies-related	0104、0107、0108	
Gender studies-related	0104、0106、0108	
Design-related	0101,0304,1002	
Japanese language education-related 0102,0109		
Foreign language education-related	0102、0109	
Library and information science, humanistic	0100 1000	
and social informatics-related	0102、1002	
Cognitive science-related	0110、1002	
Quantum beam science-related	0202、0203	

0101 : Philosophy, art, and related fields

	Examples of related research content
Pł	nilosophy and ethics-related
	nilosophy in general, Ethics in general, Western philosophy, Western ethics, Japanese philosophy, panese ethics, Applied ethics, etc.
	hinese philosophy, Indian philosophy and Buddhist philosophy-related
Cl ete	hinese philosophy/thought, Indian philosophy/thought, Buddhist philosophy, Bibliography, Philolog c.
Re	eligious studies-related
	istory of religions, Philosophy of religion, Theology, Sociology of religion, Psychology of religion, nthropology of religion, Studies of religious folklore, Mythology, Bibliography, Philology, etc.
H	istory of thought-related
	istory of thought in general, History of Western thought, History of Eastern thought,
Hi	istory of Japanese thought, History of Islamic thought, etc.
A	esthetics and art studies-related
Pł	nilosophy of art, Aesthetics, Music theory, Theatrical theory, Miscellaneous art studies, etc.
Hi	istory of arts-related
	panese art, Eastern art, Western art, Contemporary art, Craft, Design, Architecture, Costume, notography, etc.
Tł	neory of art practice-related
A	rt expression, Arts management, Art policy, Art production, etc.
Sc	ociology of science, history of science and technology-related
	ociology of science, History of science, History of technology, History of medicine,
	dustrial archeology, Philosophy of science, Foundation of science, STS (Science, technology and
	ciety), etc.
	esign-related
	formation design, Environmental design, Industrial design, Spatial design, Design history,
Tł	neory of design, Design standard, Design support, Evaluation of design, Design education, etc.

	Examples of related research content
_	Japanese literature-related
	Japanese literature in general, Ancient literature, Medieval literature, Chinese classics in Japan,
	Bibliography, Philology, Premodern literature, Modern literature, Contemporary literature, Literar
	heory, etc.
	Chinese literature-related
(Chinese literature, Bibliography, Philology, Literary theory, etc.
F	English literature and literature in the English language-related
F	English literature, American literature, Literature in the English language, Literary theory, Bibliog
ł	Philology, etc.
ł	European literature-related
-	French literature, Literature in the French language, German literature,
	Literature in the German language, Classics, Russian and East European literature,
	Literature in other European languages, Literary theory, Bibliography, Philology, etc.
ľ	Sherutare in other European languages, Energy theory, Bionography, Thilotogy, etc.
	Literature in general-related
	Literature in other languages and areas, Literary theory, Comparative literature, Bibliography, Phi
I	Literature education, etc.
I	Linguistics-related
	Phonetics/phonology, Semantics/pragmatics, Morphosyntax, Sociolinguistics, Contrastive linguist
F	Psycholinguistics, Neurolinguistics, Historical linguistics, Corpus linguistics,
F	Endangered and minority languages, etc.
J	Japanese linguistics-related
	Phonetics/phonology, Writing systems, Lexicon and semantics, Grammar, Stylistics, Pragmatics, Language life, Dialect, History of the Japanese language, History of Japanese linguistics, etc.
	English linguistics-related
	Phonetics/phonology, Lexicon and semantics, Grammar, Stylistics, Pragmatics, Sociolinguistics,
Ι	Diversity of the English language, Corpus linguistics, History of the English language,
ł	History of English linguistics, etc.
	Japanese language education-related
I	Research on learners, Language acquisition, Teaching material, Curriculum evaluation,
	Japanese language education for specific purposes, Bilingual education, Research on teachers,
J	Japanese language for Japanese language education, History of Japanese language education,
J	Cross-cultural understanding, etc.
J (
J (H	Cross-cultural understanding, etc. Foreign language education-related
J (H I	Cross-cultural understanding, etc. Foreign language education-related Learning method, Computer-assisted language learning (CALL), Teaching material, Language tes
J (H I	Cross-cultural understanding, etc. Foreign language education-related Learning method, Computer-assisted language learning (CALL), Teaching material, Language tes Theory of second language acquisition, Early English education,
J (H I J H	Cross-cultural understanding, etc. Foreign language education-related Learning method, Computer-assisted language learning (CALL), Teaching material, Language tes Theory of second language acquisition, Early English education, History of foreign language education and language policies, Curriculum evaluation,
J (H J H J	Cross-cultural understanding, etc. Foreign language education-related Learning method, Computer-assisted language learning (CALL), Teaching material, Language tes Theory of second language acquisition, Early English education, History of foreign language education and language policies, Curriculum evaluation, Training foreign language teachers, Cross-cultural understanding, etc.
J C H J J I	Cross-cultural understanding, etc. Foreign language education-related Learning method, Computer-assisted language learning (CALL), Teaching material, Language tes Theory of second language acquisition, Early English education, History of foreign language education and language policies, Curriculum evaluation, Training foreign language teachers, Cross-cultural understanding, etc. Library and information science, humanistic and social informatics-related
J C H I J I I I	Cross-cultural understanding, etc. Foreign language education-related Learning method, Computer-assisted language learning (CALL), Teaching material, Language tes Theory of second language acquisition, Early English education, History of foreign language education and language policies, Curriculum evaluation, Training foreign language teachers, Cross-cultural understanding, etc. Library and information science, humanistic and social informatics-related Library science, Information services, Information organizing, Information retrieval,
J F H J H J H J H J H	Cross-cultural understanding, etc. Foreign language education-related Learning method, Computer-assisted language learning (CALL), Teaching material, Language tes Theory of second language acquisition, Early English education, History of foreign language education and language policies, Curriculum evaluation, Training foreign language teachers, Cross-cultural understanding, etc. Library and information science, humanistic and social informatics-related Library science, Information services, Information organizing, Information retrieval, Bibliometrics, Information resources, Information ethics, Digital humanities, Social Informatics, I
J F H J H J H J H J H	Cross-cultural understanding, etc. Foreign language education-related Learning method, Computer-assisted language learning (CALL), Teaching material, Language tes Theory of second language acquisition, Early English education, History of foreign language education and language policies, Curriculum evaluation, Training foreign language teachers, Cross-cultural understanding, etc. Library and information science, humanistic and social informatics-related Library science, Information services, Information organizing, Information retrieval,
J C H I J H J I F a	Cross-cultural understanding, etc. Foreign language education-related Learning method, Computer-assisted language learning (CALL), Teaching material, Language tes Theory of second language acquisition, Early English education, History of foreign language education and language policies, Curriculum evaluation, Training foreign language teachers, Cross-cultural understanding, etc. Library and information science, humanistic and social informatics-related Library science, Information services, Information organizing, Information retrieval, Bibliometrics, Information resources, Information ethics, Digital humanities, Social Informatics, I

Historical theory, Historical methodology, Research in historical materials, Memory and medium, World history, History of cultural and diplomatic exchange, Comparative history, Global history, Environmental history, History of emotions, etc.

	Japanese history-related
	History of ancient Japan, History of medieval Japan, History of early modern Japan, History of modern
	Japan, Listers of least lanen, History of external relations, History of extrust and religion. History of lanenage
	History of local Japan, History of external relations, History of culture and religion, History of Japanese environment,
	History of Japanese city, Research in historical materials, etc.
	History of Asia and Africa-related
	Chinese history, East Asian history, Central Eurasian history,
	Southeast Asian history, Oceanian history, South Asian history, West Asian history, African history,
	History of cultural and diplomatic exchange, Research in historical materials, etc.
	History of Europe and America-related
	Ancient European history, Medieval European history,
	Modern and contemporary West European history,
	Modern and contemporary East European history, North and South American history,
	History of cultural and diplomatic exchange, Comparative history, Research in historical materials, etc.
	Archaeology-related
	Archaeology in general, Prehistoric archaeology, Historical archaeology, Japanese archaeology,
	Ancient civilizations, History of material culture, Experimental archaeology,
	Information archaeology, Study of buried cultural property, Ecological archeology, etc.
	Cultural assets study-related
	Dating methods, Material analysis, Production techniques, Conservation science, Archaeological
	prospection,
	Plant and animal residues, Human remains, Cultural heritage, Cultural property policy,
	Museology-related
	Museum displays and exhibitions, Museum management, Museum collections and documentation,
	Museum conservation and preservation, Museum education and learning, Museum informatics and media studies,
	Museum finance and administration, History of museums and museology, etc.
0104 . C	
0104 : G	eography, cultural anthropology, folklore, and related fields
	Examples of related research content
	Geography-related
	Geography in general, Land use, Landscape, Environmental system, Geomorphology, Climatology, Hydrology, Cartography, Geographic information system, Regional planning, etc.
	Human geography-related
	Human geography in general, Economic geography, Social geography, Political geography,
	Cultural geography, Urban geography, Rural geography, Historical geography, Regional geography,
	Geography education, etc.
	Cultural anthropology and folklore-related
	Cultural anthropology in general, Folklore in general, Material culture, Ecology, Social relationship,
	Religion, Arts, Health care, Border crossing, Minority, etc.
	Area studies-related
	Area studies in general, Cross-regional comparative studies, Aid, Social development,
	Interregional exchange, Environment, Transnationalism, Globalization, Refugees, Conflict, etc.
	Tourism studies-related
	Tourism studies in general, Tourism resources, Tourism policy, Tourism industry,
	Tourist area, Tourists, Tourism culture, Tourism media, Sustainable tourism, Tourism ethics, etc.
	Gender studies-related

Gender studies in general, Feminism, Men's studies, Sexuality, Queer studies, Labor, Violence,
Prostitution,
Reproductive technology, Gender equality, etc.

	Examples of related research content
Lega	theory and history-related
Lega	philosophy, Roman law, Legal history, Sociology of law, Comparative law, Foreign law, and policy, Law and economics, Judicial system, etc.
Publi	c law-related
Cons	titutional law, Administrative law, Tax law, etc.
	national law-related
	c international law, Private international law, International human rights law, national economic law, EU law, etc.
Socia	l law-related
Labo	r law, Economic law, Social security law, Education law, etc.
Crim	inal law-related
	inal law, Criminal procedure, Criminology, Criminal justice policy, Juvenile law, and psychology, etc.
Civil	law-related
Civil	law, Commercial law, Civil procedure, Insolvency law, Alternative dispute resolution, etc.
New	fields of law-related
	onmental law, Medical law, Information law, Consumer law, Intellectual property law, and gender, Legal profession, etc.
litica	science and related fields
	Examples of related research content
Polit	cs-related
	cal theory, History of political thought, Political history, Political process, Political participation cal economy, Public administration, Local government, Comparative politics, Public policy, et
i ont	······································
Intern Theo	national relations-related ry of international relations, International history, Foreign policy, International security, national political economy, Global governance, International cooperation, Peace research, etc.
Intern Theo Intern	national relations-related ry of international relations, International history, Foreign policy, International security,
Intern Theo Intern Area Area	national relations-related ry of international relations, International history, Foreign policy, International security, national political economy, Global governance, International cooperation, Peace research, etc.
Intern Theo Intern Area Area Intern	national relations-related ry of international relations, International history, Foreign policy, International security, national political economy, Global governance, International cooperation, Peace research, etc. studies-related studies in general, Cross-regional comparative studies, Aid, Social development,
Intern Theo Intern Area Area Intern Gend	hational relations-related ry of international relations, International history, Foreign policy, International security, national political economy, Global governance, International cooperation, Peace research, etc. studies-related studies in general, Cross-regional comparative studies, Aid, Social development, regional exchange, Environment, Transnationalism, Globalization, Refugees, Conflict, etc.
Intern Theo Intern Area Area Intern Gend	hational relations-related ry of international relations, International history, Foreign policy, International security, national political economy, Global governance, International cooperation, Peace research, etc. studies-related studies in general, Cross-regional comparative studies, Aid, Social development, regional exchange, Environment, Transnationalism, Globalization, Refugees, Conflict, etc. er studies-related
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Intern Theo Intern Area Area Intern Gend Prost Renr	hational relations-related ry of international relations, International history, Foreign policy, International security, national political economy, Global governance, International cooperation, Peace research, etc. studies-related studies in general, Cross-regional comparative studies, Aid, Social development, regional exchange, Environment, Transnationalism, Globalization, Refugees, Conflict, etc. er studies-related er studies in general, Feminism, Men's studies, Sexuality, Queer studies, Labor, Violence, itution,
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Intern Theo Intern Area Area Intern Gend Prost Renr conorr	hational relations-related ry of international relations, International history, Foreign policy, International security, national political economy, Global governance, International cooperation, Peace research, etc. studies-related studies in general, Cross-regional comparative studies, Aid, Social development, egional exchange, Environment, Transnationalism, Globalization, Refugees, Conflict, etc. er studies-related er studies in general, Feminism, Men's studies, Sexuality, Queer studies, Labor, Violence, itution, polycetive technology Gender equality etc ics, business administration, and related fields
Intern Theo Intern Area Area Intern Gend Gend Prost Repr conom	national relations-related ry of international relations, International history, Foreign policy, International security, national political economy, Global governance, International cooperation, Peace research, etc. studies-related studies in general, Cross-regional comparative studies, Aid, Social development, egional exchange, Environment, Transnationalism, Globalization, Refugees, Conflict, etc. er studies-related er studies in general, Feminism, Men's studies, Sexuality, Queer studies, Labor, Violence, itution, oductive technology. Gender equality_etc_ ics, business administration, and related fields Examples of related research content omic theory-related
Intern Theo Intern Area Area Intern Gend Gend Prost Renn Econ	national relations-related ry of international relations, International history, Foreign policy, International security, national political economy, Global governance, International cooperation, Peace research, etc. studies-related studies in general, Cross-regional comparative studies, Aid, Social development, egional exchange, Environment, Transnationalism, Globalization, Refugees, Conflict, etc. er studies-related er studies in general, Feminism, Men's studies, Sexuality, Queer studies, Labor, Violence, itution, oductive technology. Gender equality_etc_ ics, business administration, and related fields Examples of related research content omic theory-related
Intern Theo Intern Area Area Intern Gend Gend Prost Renn conom	national relations-related ry of international relations, International history, Foreign policy, International security, national political economy, Global governance, International cooperation, Peace research, etc. studies-related studies in general, Cross-regional comparative studies, Aid, Social development, egional exchange, Environment, Transnationalism, Globalization, Refugees, Conflict, etc. er studies-related er studies in general, Feminism, Men's studies, Sexuality, Queer studies, Labor, Violence, itution, oductive technology. Gender equality_etc_ ics, business administration, and related fields Examples of related research content omic theory-related peconomics, Macroeconomics, Game theory, Behavioral economics, Experimental economics,

Economic statistics-related

Statistical system, Statistical research, Economic statistics, Big data, Econometrics, Financial econometrics, etc.

Economic policy-related

Economic policy, Industrial organization, International economics, Development economics, Environmental and resource economics, Japanese economy, Regional economy, Urban economics,

Transportation economics, Spatial economics, etc.

Public economics and labor economics-related

Public finance, Public economics, Health economics, Labor economics, Social security, Education economics, Law and economics, Political economy, Demography, etc.

Money and finance-related

Monetary economics, Finance, International finance, Corporate finance, Financial engineering, Insurance, etc.

Economic history-related

Economic history, Business history, Industrial history, etc.

Business administration-related

Organization theory, Corporate strategy, Organizational behavior, Corporation theory, Corporate governance theory,

Human resource management, Technology/Innovation management theory, International business, Management information, Business administration in general, etc.

Commerce-related

Marketing, Consumer behavior, Distributive sciences, Logistics, Commerce in general, etc.

Accounting-related

Financial accounting, Management accounting, Auditing, Accounting in general, etc.

Tourism studies-related

Tourism studies in general, Tourism resources, Tourism policy, Tourism industry,

Tourist area, Tourists, Tourism culture, Tourism media, Sustainable tourism, Tourism ethics, etc.

0108 : Sociology and related fields

Examples of related research content

Sociology-related

Sociology in general, Community, Family, Labor, Stratification, Culture, Media, Ethnicity, Social movements, Social research, etc.

Social welfare-related

Social work, Social policy, Social welfare history, Child welfare,

Social welfare for people with disabilities, Social welfare for aging, Community welfare, Poverty, Volunteerism, Social welfare in general, etc.

Family and consumer sciences, and culture and living-related

Dress and fashion, Diet habits, Housing, Family resource management, Family relations, Lifestyle, Culture and living,

Family and consumer education, Family and consumer sciences in general, etc.

Tourism studies-related

Tourism studies in general, Tourism, Tourism resources, Tourism policy, Tourism industry, Regional development, Tourists, Pilgrimage, etc.

Gender studies-related

Gender studies in general, Feminism, Men's studies, Sexuality, Queer studies, Labor, Violence, Prostitution,

Reproductive technology, Gender equality, etc.

Г	
	Examples of related research content
	Education-related
	History of education, Philosophy of education, Curriculum and pedagogy,
	Teacher and trainer, School education, Social and community education,
ŀ	Institutions and administration, Comparative education, Educational administration, etc.
1	Sociology of education-related
ľ	Sociology of education, Socialization, Educational organization and system,
	Destination and career formation, Class disparities, Gender, Education policy, Comparative educat Globalization and development, etc.
1	Childhood and nursery/pre-school education-related
í	Childhood, Nursery/pre-school education, Right of child, Development,
ſ	Contents and methods of child care, Childcare facilities and kindergarten,
í	Caregiver and pre-school teacher, Child care support, Childhood culture,
	History and thought, etc.
	Education on school subjects and primary/secondary education-related
	Education of individual subjects, Lessons of each subject area, Instructional guidance, Teacher
	education,
	Special activities, Integrated studies, Moral education, etc.
L	
	Tertiary education-related
	Policy, Admission and articulation, Curriculum, Career guidance, Teacher and staff, Scientific rese
	Regional link and contribution, Globalization, Management and governance,
	Non-university higher education, etc.
-	Special needs education-related
	Philosophy and history, Inclusion and cohesive society, Instructions and supports,
	Developmental disabilities, Emotional disturbance, Intellectual disabilities, Language disorders,
ŀ	Physical disabilities, Career education, etc.
-	Educational technology-related
ł	Curriculum development, Teaching-learning support systems, Utilization of media, Utilization of I
ľ	Teacher's education, Information literacy, etc.
1	Science education-related
ļ	Science education, Science communication, Scientific literacy, Science and society, STEM education
ľ	etc.
	Japanese language education-related
1	Research on learners, Language acquisition, Teaching material, Curriculum evaluation,
	Japanese language education for specific purposes, Bilingual education, Research on teachers,
	Japanese language for Japanese language education, History of Japanese language education,
ſ	Cross-cultural understanding, etc.
1	Foreign language education-related
	Learning method, Computer-assisted language learning (CALL), Teaching material, Language test
'	Theory of second language acquisition, Early English education,
	History of foreign language education and language policies, Curriculum evaluation,
	Training foreign language teachers, Cross-cultural understanding, etc.
L	ychology and related fields
ſ	Examples of related research content
F	Social psychology-related
	Social psychology in general, Self, Group, Attitude and behavior, Affection/emotion,
	Interpersonal relation, Social issues, Culture, etc.

Educational psychology-related

Educational psychology in general, Development, Family, School, Clinical practice, Personality, Learning, Assessment and evaluation, etc.

Clinical psychology-related

Clinical psychology in general, Psychological disorder, Assessment, Psychological intervention, Training, Mental health, Crime and delinquency, Community, etc.

Experimental psychology-related

Experimental psychology in general, Sensation, Perception, Attention, Memory, Language, Emotion, Learning, etc.

Cognitive science-related

Cognitive science in general, Cognitive models, Kansei, Human factors, Cognitive and brain science, Comparative cognition, Cognitive linguistics, Cognitive engineering, etc.

0201 : Algebra, geometry, analysis, applied mathematics, and related fields

Examples of related research content

Algebra-related

Group theory, Ring theory, Representation theory, Algebraic combinatorics, Number theory, Arithmetic geometry, Algebraic geometry, Algebraic analysis, etc.

Geometry-related

Differential geometry, Riemannian geometry, Symplectic geometry, Complex geometry, Topology, Differential topology, Low dimensional topology, etc.

Basic analysis-related

Functional analysis, Complex analysis, Probability theory, Harmonic analysis, Operator theory, Spectral analysis, Operator algebras, Algebraic analysis, Representation theory, etc.

Mathematical analysis-related

Functional equations, Real analysis, Dynamical system, Variational method, Nonlinear analysis, Applied analysis, etc.

Basic mathematics-related

Mathematical logic and foundations, Information theory, Discrete mathematics, Computer mathematics, History of mathematics, etc.

Applied mathematics and statistics-related

Numerical analysis, Mathematical modelling, Optimal control, Game theory, Statistical mathematics, etc.

0202 : Condensed matter physics, plasma science, nuclear engineering, earth resources engineering, energy engineering, and related fields

Examples of related research content

Mathematical physics and fundamental theory of condensed matter physics-related

Statistical physics, Fundamental theory of condensed matter physics, Mathematical physics, Nonequilibrium nonlinear physics, Fluid dynamics, Computational physics,

Quantum information theory, etc.

Semiconductors, optical properties of condensed matter and atomic physics-related

Semiconductors, Dielectrics, Atoms and molecules, Mesoscopic systems, Crystals,

Surfaces and interfaces, Optical properties of condensed matter, Quantum electronics, Quantum information, etc.

Magnetism, superconductivity and strongly correlated systems-related

Magnetism, Strongly correlated electron systems, Superconductivity, Quantum fluids and solids, Molecular solids, etc.

Biophysics, chemical physics and soft matter physics-related

Physics of biological phenomena, Physics of biological matters, Liquids and glasses, Soft matters, Rheology, etc.

Fundamental plasma-related

Basic plasmas, Magnetized plasmas, Laser plasmas, Strongly coupled plasmas, Plasma diagnostics, Astrophysical and space plasmas, etc.

Nuclear fusion-related

Plasma confinement, Plasma control, Plasma heating, Plasma diagnostics, Edge plasma, Plasma wall interaction, Inertial fusion, Fusion material, Fusion system, etc.

Applied plasma science-related

Plasma processing, Plasma material science, General plasma applications, etc.

Quantum beam science-related

Accelerators, Beam physics, Radiation detectors, Beam control, Applied quantum beam science, etc.

Nuclear engineering-related

Reactor physics, Nuclear safety, Thermal-hydraulics and structure, Fuel material, Nuclear chemistry, Nuclear life cycle, Radiation safety, Radiation engineering, Fusion reactor engineering, Nuclear social environment, etc.

Earth resource engineering, Energy sciences-related

Resource prospecting, Resource development, Resource cycle, Resource economy, Energy system, Environmental load, Renewable energy, Natural resources and energy policy, etc.

0203 : Particle-, nuclear-, astro-physics, and related fields

Examples of related research content

Quantum beam science-related

Accelerators, Beam physics, Radiation detectors, Beam control, Applied quantum beam science, etc.

Theoretical studies related to particle-, nuclear-, cosmic ray and astro-physics

Particle physics, Nuclear physics, Cosmic-ray physics, Astrophysics, Relativity, Gravity, etc.

Experimental studies related to particle-, nuclear-, cosmic ray and astro-physics Particle physics, Nuclear physics, Cosmic-ray physics, Astrophysics, Relativity, Gravity, etc.

0204 : Astronomy, earth and planetary science, and related fields

Examples of related research content

Astronomy-related

Theoretical astronomy, Radio astronomy, Optical/infrared astronomy, X-ray/ γ -ray astronomy, Astrometry, Solar physics, Exoplanet astronomy, etc.

Space and planetary sciences-related

Solar-terrestrial physics, Aeronomy, Planetary science, Exoplanetary science,

Extraterrestrial material science, etc.

Atmospheric and hydrospheric sciences-related

Climate system, Atmospheric science, Ocean science, Limnology, Glaciology, Paleoclimatology, etc.

Human geosciences-related

Geoenvironmental science, Natural disaster science, Geospatial information science,

Quaternary research, Earth resources science, etc.

Solid earth sciences-related

Solid earth geophysics, Geology, Earth's interior material science, Solid earth geochemistry, etc.

Biogeosciences-related

Origin and evolution of life, Extremophile biology, Biogeochemistry, Paleoenvironmental science, Paleontology, etc.

0301 : Mechanics of materials, production engineering, design engineering, fluid engineering, thermal engineering, mechanical dynamics, robotics, aerospace engineering, marine and maritime engineering, and related fields

Examples of related research content

Mechanics of materials and materials-related

Structural mechanics, Fatigue, Fracture, Biomaterials, Material design, Material characteristics, Material evaluation, etc.

Manufacturing and production engineering-related

Machining, Non-traditional machining, Ultraprecision machining, Machine tools, Manufacturing systems, Precision metrology, Process planning, etc.

Design engineering-related

Mechanical design, Product design, Design theory, Design for reliability, Optimal design, Computeraided design, etc.

Machine elements and tribology-related

Machine elements, Mechanisms, Tribology, Actuators, Micromachines, etc.

Fluid engineering-related

Fluid machinery, Flow measurement, Computational fluid dynamics, Turbulence, Multiphase flow, Compressible flow, Incompressible flow, etc.

Thermal engineering-related

Heat transfer, Convection, Combustion, Thermophysical properties, Refrigeration and air-conditioning, Heat engine, Energy conversion, etc.

Mechanics and mechatronics-related

Kinematics, Kinetics, Vibration, Acoustics, Automation, Biomechanics,

Instrument and control applications, Mechatronics applications, etc.

Robotics and intelligent system-related

Robotics, Intelligent system, Human mechanical system, Human interface, Planning, Intelligent spatial system, Virtual reality, Augmented reality, etc.

Aerospace engineering-related

Thermo-fluid dynamics, Structural mechanics, Propulsion, Aerospace craft design, Production engineering, Aircraft system, Aerodynamics, Spacecraft system, Space utilization, etc.

Marine engineering-related

Navigation, Structural mechanics, Structural design, Production technology, Marine propulsion, Marine transport, Marine development, Underwater engineering, Polar engineering, Marine environmental technology, etc.

0302 : Electrical and electronic engineering and related fields

Examples of related research content

Power engineering-related

Electrical energy-related, Energy conservation, Power system engineering, Electric machinery,

Power electronics, Effective utilization of electric energy, Electromagnetic compatibility, Wireless power transfer, etc.

Communication and network engineering-related

Information theory, Nonlinear theory, Signal processing, Communication systems, Modulation/demodulation,

Antennas, Networks, Multimedia, Cryptography/security, etc.

Measurement engineering-related

Measurement theory, Measuring instruments, Applied wave metrology, Measurement systems, Signal processing, Sensing, etc.

Control and system engineering-related

Control theory, System theory, Control systems, Knowledge-based control systems,

System information processing, System control applications, Biosystems engineering, etc.

Electric and electronic materials-related

Semiconductor, Dielectric materials, Magnetic materials, Organic materials, Superconductor, Composite materials, Thin films, Functional materials, Thick films, Fabrication/characterization methods, etc.

Electron device and electronic equipment-related

Electron devices, Circuit design, Optical devices, Spintronic devices, Millimeter wave/terahertz wave, Applied wave devices, Storage devices, Displays, Process technology, Implementation technology, etc.

0303 : Civil engineering, social systems engineering, safety engineering, disaster prevention engineering, and related fields

Examples of related research content

Civil engineering material, execution and construction management-related

Concrete, Steel, Composite material, Wood, Pavement material, Repair and reinforce material, Execution,

Maintenance, Construction management, etc.

Structure engineering and earthquake engineering-related

Applied mechanics, Structure engineering, Steel structure, Concrete structure, Composite structure, Wind engineering, Earthquake engineering, Aseismatic structure, Earthquake prevention, etc.

Geotechnical engineering-related

Soil mechanics, Foundation engineering, Rock engineering, Engineering geology, Ground behavior, Geotechnical structures, Geo-disaster prevention, Geo-environment, Tunnel engineering, etc.

Hydroengineering-related

Hydraulics, Environmental hydraulics, Hydrology, River engineering, Water resource engineering, Coastal engineering, Port and harbor engineering, Ocean engineering, etc.

Civil engineering plan and transportation engineering-related

Civil engineering plan, Regional urban planning, Spatial planning, Disaster prevention plan, Transportation plan, Transportation engineering, Railway engineering, Surveying and remote sensing, Landscape design, Civil engineering history, etc.

Environmental systems for civil engineering-related

Environment plan, Environmental system, Environment conservation,

Water serve and drainage systems, Waste, Water environment, Atmospheric circulation, Noise and vibration, Environment ecology, Environmental monitoring, etc.

Social systems engineering-related

Social systems, Industrial engineering, Operations research, Industrial management,

Reliability engineering, Policy science, Regulatory science, Quality control, etc.

Safety engineering-related

Safety engineering, Safety system, Risk engineering, Risk management, Work safety, Industrial safety, Product safety,

Safety information, Human engineering, Liability engineering, etc.

Disaster prevention engineering-related

Disaster prediction, Hazard map, Building prevention against disaster,

Lifeline prevention against disaster, Regional disaster prevention planning, Risk evaluation of disaster, Disaster prevention policy, Disaster resilience, etc.

	Examples of related research content
Bu	ilding structures and materials-related
Lo	ad theory, Structural analysis, Structural design, Structures, Earthquake resistant design, undation, Geotechnics, Structural material, Maintenance, Building construction method, etc.
Are	chitectural environment and building equipment-related
En	und environment, Vibration environment, Light environment, Heat environment, Air environmen vironmental psychology/physiology, Building equipment, Fire engineering, Urban environment, vironment design, etc.
Are	chitectural planning and city planning-related
	nning theory, Design theory, Housing theory, Buildings, Urban/regional planning, Administratio ilding economics, Production management, Disaster prevention planning, Landscape, etc.
Ar	chitectural history and design-related
etc	
	sign-related
	formation design, Environmental design, Industrial design, Spatial design, Design history, eory of design, Design standard, Design support, Evaluation of design, Design education, etc.
ater	rials engineering, chemical engineering, and related fields
	Examples of related research content
	etallic material properties-related
	ectric and magnetic properties, Metastable states, Diffusion, Phase transformation, Phase diagram
	ttice defect,
	echanical properties, Thermal and optical properties, Materials computational science, Microstruc
_	organic materials and properties-related
	nctional ceramics, Glass, Engineering ceramics, Carbon-based materials, Crystal structure analysic crostructure,
	ectric properties, Mechanical properties, Physical and chemical properties, Grain boundary, etc.
	mposite materials and interfaces-related
	nctional composite materials, Structural composite materials, Biocompatible composite materials.
	lymer composite, Surface treatment, Bonding and joining, Interface properties, Gradient function
Str	uctural materials and functional materials-related
	rastructural materials, Structural materials, Functional materials, Medical welfare materials, liability,
	nsor materials, Energy materials, Battery materials, Environmental materials, etc.
	aterial processing and microstructure control-related
	ocessing and molding, Molding, Weld joining, Crystal microstructure control, Laser processing,
	ecision processing, Polishing, Powder metallurgy, Coating, Corrosion and protection, etc.
	etals production and resources production-related
sub	paration and purification, Melting and solidifying, Crystal growth, Casting, Scarce resources ostitution,
	w environment impact, Recycle, etc. ansport phenomena and unit operations-related
_	ase equilibrium, Transport properties, Fluid-phase unit operation, Adsorption, Membrane separat
Sti	r mixing, Powder and particle, Crystallization, Film formation, Supercritical, etc.
Ch	emical reaction and process system engineering-related
	action operation Nevel reaction process. Reaction machanism Reactor design
Rea	action operation, Novel reaction process, Reaction mechanism, Reactor design, aterials synthesis process, Microreactor, Process control, Process system design, Process informat

Catalyst and resource chemical process-related

Catalyst preparation, Catalytic function, Energy conversion process, Energy technology, Resources effective utilization technology, Catalytic material, Active site analysis, etc.

Biofunction and bioprocess engineering-related

Biocatalyst engineering, Biofunction engineering, Food engineering, Medicochemical engineering, Bioproduction process, Bioreactor, Bioseparation, Biosensor, Biorefinery, etc.

0402 : Nano/micro science, applied condensed matter physics, applied physics and engineering, and related fields

Examples of related research content

Nanometer-scale chemistry-related

Nanoparticle chemistry, Mesoscopic chemistry, Nanostructure control, Self-assembly, Nanocarbons, Molecular devices, Nanointerface function, Nanospace function, etc.

Nanostructural physics-related

Physics in nanoscale materials and structures, Nanoprobes, Quantum dots,

Quantum devices, Electron devices, Spin devices, Nano optical device, Nanotribology, Nanocarbon physics, etc.

Nanomaterials-related

Creation of nanomaterials, Analysis of nanomaterials, Nanosurfaces and nanointerfaces,

Functional nanomaterials, Nanoparticles, Carbon nanomaterials, Two-dimensional materials, Nanocrystalline materials, Nanocomposites, Nanofabrication process, etc.

Nanobioscience-related

Biomolecular devices, Molecular manipulation, Molecular imaging, Nanomeasurements, Nanosynthesis, Single molecule science, Nano-bio interfaces, Biomolecular array, Genome engineering, etc.

Nano/micro-systems-related

MEMS, NEMS, BioMEMS, Nano/micro-fabrication, Nano/micro-chemical systems, Nano/micro-biosystems,

Nano/micro-mechanics, Nano/micro-sensors, etc.

Applied physical properties-related

Magnetic materials, Superconductors, Dielectrics, Fine particles, Liquid crystals, New functional materials, Molecular electronics, Bioelectronics, Spintronics, etc.

Thin film/surface and interfacial physical properties-related

Thin-film engineering, Surface and interfacial engineering, Surface science, Vacuum, Measurement, Analysis,

Nanoscopic technology, Advanced equipment, Electronics application, etc.

Applied condensed matter physics-related

Elementary quantities, Standards, Units, Physical quantity measurements and detection,

Energy conversion, etc.

Crystal engineering-related

Metal, Semiconductor, Ceramics, Amorphous, Crystal growth, Artificial structures, Device structure, Crystal characterization, Plasma process, etc.

Optical engineering and photon science-related

Optical materials, Optical elements, Optical properties, Optical information processing, Laser, Optical sensing, Optical recording, Opto-electronics, Nonlinear optics, Quantum optics, etc.

0403 : Biomedical engineering and related fields

Examples of related research content

Biomedical engineering-related

Medical imaging, Medical modeling, Biological simulation, Biometrics, Artificial organs, Tissue engineering, Biophysical properties, Biocontrol, Biomechanics, Nanobio systems, etc. Biomaterials-related

Biofunctional materials, Tissue engineering materials, Biocompatible materials, Nanobio materials, Drug delivery systems, Stimuli-sensitive materials, Genetic engineering material, etc.

Medical systems-related

Medical ultrasound system, Diagnostic imaging system, Laboratory diagnosis systems,

Minimally invasive treatment systems, Remote diagnosis and treatment systems,

Organ preservation systems, Medical information systems, Computer-assisted surgery, Medical robot, etc.

Medical technology assessment-related

Regulatory science, Safety evaluation, Clinical study, Medical technology ethics, Medical devices, etc.

Medical assistive technology-related

Healthcare and rehabilitation engineering, Life assist technology, Care support technology, Accessibility design, Universal design, Rehabilitation and nursing robot, Assist device for artificial internal organ,

0501 : Physical chemistry, functional solid state chemistry, organic chemistry, polymers, organic materials, biomolecular chemistry, and related fields

Examples of related research content

Fundamental physical chemistry-related

Gas, Liquid, Solid, Nanomaterials, Bio-related materials, Structure and properties, Chemical reactions, Spectroscopy,

Theoretical calculation, Data science, etc.

Functional solid state chemistry-related

Molecular materials, Inorganic compounds, Hybrid compounds, Colloids, Surface/interface, Electrical properties, Optical properties, Magnetic properties, Energy conversion, Catalysis, etc.

Structural organic chemistry and physical organic chemistry-related

Chemistry of organic crystals, Molecular recognition, Supermolecules, Functional organic molecules, Extended π -electron molecules, Organoelement chemistry, Reaction mechanism, Molecular chirality, Theoretical organic chemistry, etc.

Synthetic organic chemistry-related

Development of reactions, Reaction mechanism, Selective reactions, Asymmetric synthesis, Development of catalysts, Biocatalysis, Sustainable organic synthesis, Natural product synthesis, Process chemistry, etc.

Polymer chemistry-related

Polymer synthesis, Polymer reactions, Functional polymers,

Self-assembled polymers, Non-covalent polymers, Chiral polymers, Bio-related polymers, Polymer properties,

Polymer materials-related

Properties of polymer materials, Synthesis of polymer materials,

Functional polymer materials, Environmentally friendly polymer materials, Liquid crystal polymers,

Gel, Biopolymers, Polymer composites, Polymer processing, etc.

Organic functional materials-related

Organic semiconductors, Liquid crystals, Optical materials, Device-related materials,

Electrically conductive materials, Hybrid materials, Molecular functional materials,

Organic hybrid materials, Materials for energy conversion, etc.

Bio-related chemistry

Bioorganic chemistry, Bioinorganic chemistry, Biological reaction engineering,

Biofunctional chemistry, Biofunctional materials, Biotechnology, etc.

Chemistry and chemical methodology of biomolecules-related

Natural product chemistry, Biologically active compounds,

Molecular mechanism of biological activities, Biofunctional molecules, Combinatorial chemistry, Metabolomic analysis, etc.

Chemical biology-related

In vivo functional expression, Intracellular chemical reactions, Drug discovery science, Chemical library, Structure-activity relationship, Chemical probes, Biomolecular measurements,

Molecular imaging,

0502 : Inorganic/coordination chemistry, analytical chemistry, inorganic materials chemistry, energy-related chemistry, and related fields

Examples of related research content

Inorganic/coordination chemistry-related

Coordination chemistry, Organometallic chemistry, Inorganic solid-state chemistry,

Bioinorganic chemistry, Solution chemistry, Clusters, Supramolecular complexes,

Coordination polymers, Typical elements, Physical properties and functions, etc.

Analytical chemistry-related

Spectrometric analysis, Advanced measurements, Surface/interface analysis, Separation analysis, Analytical reagents, Radiochemical analysis, Electrochemical analysis, Bioanalysis, New analysis methods, etc.

Green sustainable chemistry and environmental chemistry-related

Green process, Green catalysts, Recycle, Environmental assessment, Environmentally conscious materials,

Reduction of environmental load, Environmental restoration, Resource saving, Geochemistry, Environmental radioactivity, etc.

Inorganic compounds and inorganic materials chemistry-related

Crystals, Amorphous, Ceramics, Semiconductors, Inorganic device-related materials,

Low-dimensional compounds, Porous materials, Nanoparticles, Multicomponent compounds,

Hybrid materials, etc. Energy-related chemistry

Energy resources, Energy conversion materials, Energy carriers, Solar energy utilization, Material separation, Catalytic transformation, Battery and electrochemical materials, Energy-saving materials, Renewable energy, Unused energy, etc.

0601 : Agricultural chemistry and related fields

Examples of related research content

Plant nutrition and soil science-related

Plant metabolism and physiology, Nutritional elements in plants, Soil classification, Soil physical chemistry, Soil organisms, etc.

Applied microbiology-related

Microbial genetics/breeding, Microbial function, Microbial metabolism and physiology,

Microbial applications, Control of microbes, Microbial ecology, Production of useful materials, etc. Applied biochemistry-related

Cellular biochemistry, Applied biochemistry, Structural biology, Regulation of bioactivity,

Metabolism and physiology, Cellular function, Molecular function, Production of useful materials, etc.

Bioorganic chemistry-related

Bioactive substances, Signal molecules, Natural products chemistry, Biosynthesis,

Structure-activity relationship, Synthetic organic chemistry, Chemical biology, etc.

Food sciences-related

Food function, Food chemistry, Nutritional chemistry, Food analysis, Food engineering, Food safety, Functional food, Nutritional epidemiology, Clinical nutrition, etc.

	Applied molecular and cellular biology-related
	Molecular cell biology, Cellular bioengineering, Molecular engineering, Gene expression control, Cell-cell/intermolecular interactions, Cellular function, Production of useful materials, etc.
: /	Agricultural and environmental biology and related fields
	Examples of related research content
	Science in plant genetics and breeding-related
	Genetic resources, Breeding theories, Genomic breeding, Plants with novel traits, Quality components Stress tolerance, Yielding ability, Reproduction and multiplication, Growth physiology, Development, etc.
	Crop production science-related
	Field crops, Crop yield, Crop product quality, Crop morphology, Growth prediction, Crop physiology, Field management, Low-cost cultivation techniques, Environmentally friendly agriculture, Field ecosystem, etc.
	Horticultural science-related
	Plant growth, flowering, and fruit development, Nursery plant propagation and production, Crop production systems, Cultivation techniques, Protected horticulture, Controlled environment systems, Breeding and development of new cultivars, Quality of horticultural products, Postharvest physiology and management, Socio-horticulture, etc.
	Plant protection science-related
	Plant protection science-related Plant pathology, Clinical plant science, Agricultural insect pest, Natural enemy, Weed, Agricultural chemicals, Integrated pest management, etc.
	Insect science-related
	Sericulture insect technology, Insect genetics, Insect pathology, Insect physiology and biochemistry, Insect ecology, Chemical ecology, Systematics, Symbiosis and parasitism, Social insects, Medical entomology, etc.
	Conservation of biological resources-related
	Conservation biology, Biodiversity conservation, Conservation of phylogenetic diversity, Genetic resources conservation, Ecosystem conservation, Conservation of microorganisms, Impacts o non-native species, etc.
	Landscape science-related
	Landscape architecture, Parks and open space planning, Landscape planning, Cultural landscape, Nature conservation, Landscape ecology, Parks and open space management, Parks, Environmental greening, Participatory community design, etc.
	Forestry and forest products science, applied aquatic science, and related fields
	Examples of related research content
	Forest science-related
	Forest ecology, Forest biodiversity, Forest genetics and breeding, Silviculture, Forest protection, Forest environments, Erosion control, Forest utilization, Forest planning, Forest policy, etc.
	Wood science-related
	Wood structure, Wood property, Lignocellulose, Trace element, Fungus, Wood processing, Biomass-refinery, Wood based material, Wooden building, Forest products education, etc.
	Aquatic bioproduction science-related
	Aquatic environment, Fisheries, Aquatic resource management, Aquatic organisms, Aquatic ecosyster Aquaculture, Fisheries engineering, Fishing community/fisheries policy, Fisheries economics/management/marketing, Fisheries education, etc.
	Aquatic life science-related
	Aquatic nutrition, Aquatic pathology, Aquatic genetics/heredity/breeding, Aquatic physiology, Utilization of aquatic organisms and biomass, Aquatic biological chemistry, Aquatic biotechnology,
	Aquatic food sciences, etc.

Examples of related research content
Agricultural and food economics-related Food economy, Agricultural production economy, Agricultural policy, Food system, Food marketing,
International agricultural development, Trade of agricultural commodities and livestock products, Rura resources and environment, etc.
Rural sociology and agricultural structure-related
Farm organization, Farm management, Agricultural structure, Agricultural market, Agricultural history Rural society, Rural life, Agricultural cooperative, etc.
Rural environmental engineering and planning-related
Irrigation and drainage, Reclamation and conservation of agricultural land, Rural planning,
Rural environment, Circulation of resources and energy, Disaster prevention in rural area,
Stock management of agricultural infrastructures, Hydrodynamics and hydrology, Soil physics, Design and construction materials, etc.
Agricultural environmental engineering and agricultural information engineering-related
Agricultural production facilities, Bioproduction machinery, Environmental control, Agricultural meteorology and micrometeorology, Agricultural information, Greenhouse horticulture, Plant factory, Postharvest and supply chain, Nondestructive measurement, Remote sensing and geographic information system, etc.
Environmental agriculture-related
Biomass, Environmental manipulation, Biodiversity, Environmental analysis, Ecosystem services, Resources circulation system, Low-carbon societies, Life-cycle assessment, Environmental friendly agriculture, Watershed management, etc.
/eterinary medical science, animal science, and related fields
Examples of related research content
Animal production science-related
Breeding/genetics, Reproduction, Nutrition/feeding, Anatomy/physiology, Product, Environment, Behavior, Therapy, Grassland, Grazing, etc.
Veterinary medical science-related
Basic veterinary science, Pathological veterinary science, Applied veterinary science, Clinical veterinary science, Animal nursing, Animal welfare, Wildlife, etc.
Animal life science-related
Homeostasis, Cellular function, Biological defense, Integrated genetics, Development/differentiation, Biotechnology, etc.
Laboratory animal science-related
Genetic engineering, Developmental engineering, Animal models of disease, Facility management, Laboratory animal welfare, Laboratory animal-related technology, Bioresource, etc.
Biology at molecular to cellular levels, and related fields
Examples of related research content
Molecular biology-related
Chromosome function, Chromatin, Epigenetics, Genome maintenance, Genome transmission,
Chromosome re-organization, Gene expression, Non-coding RNA, Regulation of protein function,
Molecular genetics, Regulation of RNA function, etc.
Structural biochemistry-related

	Functional biochemistry-related
	Enzymes, Sugar chain, Bioenergy conversion, Biological trace elements, Physiologically active
	substances,
	Cell signaling, Membrane transport, Proteolysis, Molecular recognition, Organelle, etc.
	Biophysics-related
	Structure biology, Physical property of biomolecules, Biomembrane, Photobiology, Molecular motor,
	Biometrics, Bioimaging, Systems biology, Synthetic biology, Theoretical biology, etc.
	Genome biology-related
	Genome organization, Genome function, Genome diversity, Molecular evolution of genome,
	Genome repair/maintenance, Trans-omics, Epigenome, Gene resource, Genome dynamics, etc.
	System genome science-related
	Network analyses, Synthetic biology, Biological databases, Bioinformatics,
	Genome analysis technology, Genome biotechnology, etc.
0702 : Bi	ology at cellular to organismal levels, and related fields
	Examples of related research content
	Cell biology-related
	Cytoskeleton, Proteolysis, Organelle, Nuclear structure and function, Extracellular matrix,
	Signal transduction, Cell cycle, Cell motility, Cell-cell interaction, Cellular genetics, etc.
	Developmental biology-related
	Cell differentiation, Stem cells, Regeneration, Germ layer formation, Morphogenesis, Organogenesis,
	Fertilization, Germ cells, Developmental genetics, Evolution and development, etc.
	Plant molecular biology and physiology-related
	Photosynthesis, Growth physiology, Plant development, Organelle, Cell wall,
	Responses to environment, Plant-microbe interaction, Metabolism, Plant molecular function, etc.
	Morphology and anatomical structure-related
	Morphology, Comparative morphology, Morphological modeling, Ultrastructure, Morphological image analysis,
	Tissue organization, Microscopic technology, Imaging, etc.
	Animal physiological chemistry, physiology and behavioral biology-related
	Metabolic physiology, Neurophysiology, Neuroethology, Behavioral physiology, Animal physiological chemistry,
	Chronobiology, Comparative physiology, Comparative endocrinology, Behavioral genetics, etc.
0703 : Bi	ology at organismal to population levels and anthropology, and related fields
	Examples of related research content
	Genetics-related
	Molecular genetics, Cellular genetics, Developmental genetics, Behavioral genetics, Population genetics,
	Quantitative trait, Population genomics, Genome-wide association study, Genetic diversity, Epigenome
	diversity, etc.
	Evolutionary biology-related
1	Molecular evolution, Evolutionary genetics, Phenotypic evolution, Evolutionary developmental biology,
	Evolution of ecological traits, Evolution of behaviors, Experimental evolution, Coevolution, Speciation,
	Evolutionary theory, etc.
1	Biodiversity and systematics-related
1	Taxonomic characters, Taxon, Classification system, Molecular phylogeny, Phyletic evolution,
	Speciation, Natural history, Biogeography, Rare species conservation, Biodiversity, etc.
	Ecology and environment-related
	Quantitative trait, Population genomics, Genome-wide association study, Genetic diversity, Epigenome diversity, etc. Evolutionary biology-related Molecular evolution, Evolutionary genetics, Phenotypic evolution, Evolutionary developmental biology, Evolution of ecological traits, Evolution of behaviors, Experimental evolution, Coevolution, Speciation, Evolutionary theory, etc. Biodiversity and systematics-related Taxonomic characters, Taxon, Classification system, Molecular phylogeny, Phyletic evolution, Speciation, Natural history, Biogeography, Rare species conservation, Biodiversity, etc.

Chemical ecology, Molecular ecology, Physiological ecology, Evolutionary ecology, Behavioral ecology, Population ecology, Community ecology, Conservation ecology, Biological interactions, Material cycles in ecosystems, etc.

Physical anthropology-related
Morphology and function, Bioarchaeology, Biological mechanism, Genome, Evolutionary genetics,
Behavior,
Ecology, Comparative cognition, Primates, Growth and aging, etc.
Applied anthropology-related
Physiological anthropology, Ergonomics, Forensic anthropology, Medical anthropology,
Physiological polymorphisms, Environmental adaptability, Somatic and physiological function,
Anthropometry and bioengineering, Lifestyle, etc.
0704 : Neuroscience, brain sciences, and related fields
Examples of related research content
Neuroscience-general-related
Neurochemistry, Neuron, Glia, Genome, Epigenetics, Neurobiology, Information processing, Synapse, Neurogenesis, etc.
Anatomy and histopathology of nervous system-related
Neural development, Anatomy of nervous system, Neural network structure, Neuropathology, etc.
Function of nervous system-related
Neurophysiology, Neuropharmacology, Neurotransmission, Neuroinformatics, Behavioral neuroscience, Neural system physiology, Cerebral blood flow, Autonomic nervous system, etc.
Basic brain sciences-related
Brain-machine interface, Model animal, Computational brain science, Brain information decoding,
Control technologies, Brain imaging, Brain biometrics, etc.
Cognitive and brain science-related
Social behavior, Communication, Emotion, Decision making, Consciousness, Learning, Neuroeconomics, Neuropsychology, etc.
Pathophysiologic neuroscience-related
Clinical neuroscience, Dolorology, Sensory impairment, Movement disorder, Neurological disorder, Neurogenesis, Neuroimmunology, Cellular degeneration, Disease model, etc.
0801 : Pharmaceutical sciences and related fields
Examples of related research content
Pharmaceutical chemistry and drug development sciences-related
Inorganic chemistry, Organic chemistry, Medicinal chemistry, Medicinal molecular design, Drug discovery, Bio-related materials, Chemical biology, etc.
Pharmaceutical analytical chemistry and physicochemistry-related
Environmental analysis, Bioanalysis, Physicochemistry, Biophysics, Structural biology, Radiochemistry, Bioimaging, Drug formulation design, Computer science, Information science, etc.
Pharmaceutical hygiene and biochemistry-related
Environmental hygiene, Healthful nutrition, Disease prevention, Toxicology, Drug metabolism,
Host defense, Molecular biology, Cell biology, Biochemistry, etc.
Pharmacology-related
Pharmacology, Pharmacogenomics, Applied pharmacology, Signal transduction, Drug interactions, Drug response, Pharmacotherapy, Pharmacotoxicology, etc.
Environmental and natural pharmaceutical resources-related
Environmental resource science, Natural products chemistry, Bioactive natural compounds,
Medicinal resources, Medicinal foods, Pharmaceutical microbiology, etc.

	Clinical pharmacy-related
	Pharmacokinetics, Medical informatics, Social pharmacy, Clinical pharmacy, Pharmaceutics,
	Regulatory science, Education for the pharmacist, etc.
2 : E	I Biomedical structure and function and related fields
	Examples of related research content
	Anatomy-related
	Macroscopic anatomy, Histology, Embryology, etc.
	Physiology-related
	General physiology, Pathophysiology, Comparative physiology, Environmental physiology, etc.
	Pharmacology-related
	Genomic pharmacology, Molecular and cellular pharmacology, Pathological pharmacology,
	Behavioral pharmacology, Pharmacology for drug discovery, Clinical pharmacology, etc.
	Medical biochemistry-related
	Biofunctional molecular and medical biochemistry, Genome medical sciences, Human genetics,
	Disease model, etc.
3 : P	athology, infection/immunology, and related fields
	Examples of related research content
	Pathological biochemistry-related
	Molecular pathology, Metabolic disorders, Molecular diagnosis, etc.
	Human pathology-related
	Molecular pathology, Cyto- and histo-pathology, Diagnostic pathology, etc.
	Experimental pathology-related
	Disease models, Pathological regulation, Tissue regeneration, etc.
	Parasitology-related
	Parasite, Vector organism, Parasite pathogenicity, Epidemiology of parasites, Control of parasite
	infections, etc.
	Bacteriology-related
	Bacterium, Fungus, Antimicrobial resistance, Bacterial pathogenicity, Epidemiology of bacteria, Control of bacterial infections, etc.
	Virology-related
	Virology-related Virus, Prion, Viral pathogenicity, Epidemiology of viruses, Control of viral infections, etc.
	Immunology-related
	Immune system, Immune response, Inflammation, Immune-related disorder, Immune regulation, etc.
1 • 0	Dincology and related fields
I.C	Examples of related research content
	Tumor biology-related
	Cancer and gene, Tumor development, Invasion, Metastasis, Cancer microenvironment,
	Cancer and signal transduction, Characteristics of cancer cells, Cancer and immune cells, etc.
	Tumor diagnostics and therapeutics-related
	Genome analysis, Diagnostic markers, Molecule imaging, Chemotherapy, Nucleic acid therapy,

Examples of related research content General internal medicine-related Psychosomatic medicine, Laboratory medicine, General practice, Geriatrics, Psychosomatic internal medicine, Oriental medicine, Palliative medicine, etc. Neurology-Related Neurology-Related Clinical psychiatry, Biological psychiatry, Forensic mental health, etc. Radiological sciences-related Diagnostic radiology, Therapeutic radiology, Radiation biology, Radiological technology, etc. Embryonic medicine and pediatrics-related Fetal medicine, Nonatal medicine, Pediatrics, etc. 0903 : Organ-based internal medicine and related fields Examples of related research content Gastroenterology-related Upper digestive tract, Lower digestive tract, Liver, Biliary tract, Pancreas, etc. Cardiology-related Upper digestive tract, Lower digestive tract, Liver, Biliary tract, Pancreas, etc. Cardiology-related Respiratory medicine-related Respiratory medicine, Asthma, Diffusive lung disease, COPD, Lung cancer, Pulmonary hypertension, etc. Nephrology-related Dermatology, Cutancous immune disease, Cutancous infection, Cutancous tumor, etc. 0904 : Internal medicine of the bio-information integration and related fields Examples of related research content </th <th>0902 : G</th> <th>eneral internal medicine and related fields</th>	0902 : G	eneral internal medicine and related fields
Psychosomatic medicine, Laboratory medicine, General practice, Geriatrics, Psychosomatic internal medicine, Oriental medicine, Palliative medicine, etc. Neurology-related Neurology, Neurofunctional imaging, etc. Psychiatry-related Clinical psychiatry, Biological psychiatry, Forensic mental health, etc. Radiological sciences-related Diagnostic radiology, Therapeutic radiology, Radiation biology, Radiological technology, etc. Embryonic medicine and pediatrics-related Fetal medicine, Neonatal medicine, Pediatrics, etc. 0903 : Organ-based internal medicine and related fields Examples of related research content Gastroenterology-related Upper digestive tract, Lower digestive tract, Liver, Biliary tract, Pancreas, etc. Cardiology-related Ischemic heart disease, Valvular heart disease, Arrhythmia, Cardiomyopathy, Heart failure, Peripheral arterial disease, Arteriosclerosis, Hypertension, etc. Respiratory medicine-related Respiratory medicine, Asthma, Diffusive lung disease, COPD, Lung cancer, Pulmonary hypertension, etc. Nephrology-related Acute renal failure, Chronic kidney disease, Diabetic nephropathy, Hypertension, Aqueous electrolyte metabolism, Artificial dialysis, etc. Dermatology, Cutaneous immune disease, Cutaneous infection, Cutaneous tumor, etc. 0904 : Internal medicine of the bio-information integration and r		Examples of related research content
medicine, Oriental medicine, Palliative medicine, etc. Neurology, related Neurology, Neurofunctional imaging, etc. Psychiatry-related Clinical psychiatry, Biological psychiatry, Forensic mental health, etc. Radiological sciences-related Diagnostic radiology, Therapeutic radiology, Radiation biology, Radiological technology, etc. Embryonic medicine and pediatrics-related Fetal medicine, Neonatal medicine, Pediatrics, etc. 0903 : Organ-based internal medicine and related fields Examples of related research content Gastroenterology-related Upper digestive tract, Lower digestive tract, Liver, Biliary tract, Pancreas, etc. Cardiology-related Ischemic heart disease, Valvular heart disease, Arrhythmia, Cardiomyopathy, Heart failure, Peripheral arterial disease, Valvular heart disease, COPD, Lung cancer, Pulmonary hypertension, etc. Respiratory medicine, Asthma, Diffusive lung disease, COPD, Lung cancer, Pulmonary hypertension, etc. Nephrology-related Acute renal failure, Chronic kidney disease, Diabetic nephropathy, Hypertension, Aqueous electrolyte metabolism, Artificial dialysis, etc. Dermatology, Cutaneous immune disease, Cutaneous infection, Cutaneous tumor, etc. 0904 : Internal medicine of the bio-information integration and related fields Examples of related research content Hemato		General internal medicine-related
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		Hematological oncology, Medical oncology, Hematological immunology, Anemia, Thrombosis and
		Connective tissue disease and allergy-related
		Connective tissue disease, Allergy, Clinical immunology, Inflammation, etc.
Infectious disease medicine-related		Infectious disease medicine-related
Infection diagnostics, Infection therapeutics, Host defense, International infection science, etc.		Infection diagnostics, Infection therapeutics, Host defense, International infection science, etc.
Metabolism and endocrinology-related		Metabolism and endocrinology-related
Energy balance, Glucose metabolism, Lipid metabolism, Purine metabolism, Bone metabolism, Electrolyte balance, Endocrinology, Neuroendocrinology, Reproductive endocrinology, etc.		

0905 : Surgery of the organs maintaining homeostasis and related fields
Examples of related research content
General surgery and pediatric surgery-related
Surgical basic principles, Breast surgery, Endocrine surgery, Pediatric surgery, Transplant surgery, Artificial organs science, Regeneration, Operation support, etc.
Digestive surgery-related
Upper gastrointestinal surgery, Lower gastrointestinal surgery, Hepatic surgery, Biliary surgery, Pancreatic surgery, etc.
Cardiovascular surgery-related
Coronary artery surgery, Heart valve surgery, Surgery for myocardial disease, Aortic surgery, Vascular surgery, Congenital heart surgery, etc.
Respiratory surgery-related
Lung surgery, Mediastinal surgery, Chest wall surgery, Respiratory tract surgery, etc.
Anesthesiology-related
Anesthesiology, Perioperative management, Pain management, Resuscitology, Palliative medicine, etc.
Emergency medicine-related
Intensive care medicine, Emergency resuscitation science, Trauma surgery, Disaster medicine, Disaster medical care, etc.
0906 : Surgery related to the biological and sensory functions and related fields
Examples of related research content
Neurosurgery-related
Neurosurgery, Spine and spinal cord diseases, etc.
Orthopedics-related
Orthopedics, Rehabilitation medicine, Sports medicine, etc.
Urology-related
Urology, Male genitalia science, etc.
Obstetrics and gynecology-related
Obstetrics, Reproductive endocrinology, Gynecologic oncology, Female health care medicine, etc.
Otorhinolaryngology-related
Otorhinolaryngology, Head and neck surgery, etc.
Ophthalmology-related
Ophthalmology, Ophthalmological optics, etc.
Plastic and reconstructive surgery-related
Plastic surgery, Reconstructive surgery, Aesthetic plastic surgery, etc.
0907 : Oral science and related fields
Examples of related research content
Oral biological science-related
Oral anatomy, Oral histology and embryology, Oral physiology, Oral biochemistry,
Pharmacology for hard tissues, etc.
Oral pathobiological science-related
Oral infectious diseases, Oral pathology, Oral experimental oncology, Immunity and inflammation, Laboratory medicine, etc.

Conservative dentistry-related

Operative dentistry, Endodontology, Periodontology, etc.

Regenerative dentistry and dental engineering-related

Regenerative dentistry, Biomaterial science, Dental materials science,

Oral and maxillofacial prosthetics, Oral implantology, etc.

Prosthodontics-related

Prosthodontics, Oral rehabilitation, Gerodontology, etc.

Surgical dentistry-related

Oral and maxillofacial surgery, Oral maxillofacial reconstructive surgery, Dental anesthesiology, Psychosomatic medicine dentistry, Dental radiology, etc.

Developmental dentistry-related

Orthodontics, Pediatric dentistry, etc.

Social dentistry-related

Dental hygiene, Preventive dentistry, Oral health administration and management, Dental education, Forensic odontology, etc.

0908 : Society medicine, nursing, and related fields

Examples of related research content

Medical management and medical sociology-related

Medical management, Medical social science, Ethics for medical science, Ethics for medical care, Biomedical education, History of medical science, Health policy and economics, Clinical trials, Health and medical services administration, Disaster medical science, etc.

Hygiene and public health-related: including laboratory approach

Hygiene, Public health, Epidemiology, Global health, etc.

Hygiene and public health-related: excluding laboratory approach Hygiene, Public health, Epidemiology, Global health, etc.

Forensics medicine-related

Forensic medicine, Forensic pathology, Forensic toxicology, Forensic genetics, Suicide, Abuse, Clinical forensic medicine, Sudden death, etc.

Fundamental of nursing-related

Fundamental of nursing, Nursing education, Nursing administration, Nursing ethics, Global nursing, etc.

Clinical nursing-related

Critical care and emergency nursing, Perioperative nursing, Nursing of chronic illness, Oncology nursing, Psychiatric nursing, Palliative care nursing, etc.

Lifelong developmental nursing-related

Women's health nursing, Maternal nursing, Midwifery, Family health nursing, Child health nursing, School nursing, etc.

Gerontological nursing and community health nursing-related

Gerontological nursing, Community health nursing, Public health nursing, Disaster nursing, Home care nursing, etc.

0909 : Sports sciences, physical education, health sciences, and related fields

Examples of related research content

Rehabilitation science-related

Rehabilitation medicine, Rehabilitation nursing, Rehabilitation medical care, Physicotherapeutics, Occupational therapy, Assistive technology, Speech and language therapy, etc.

Sports physiology, Sports biochemistry, Sports medicine, Sports sociology, Sports management, Sports psychology, Sports education, Training science, Sports biomechanics, Adapted sports science, etc.

Physical education, and physical and health education-related

Growth developmental science, Physical and health education, Physical education in school, Educational physiology, Physical systems science, Higher brain function science, Martial arts theory, Outdoor education, etc.

Nutrition science and health science-related

Nutritional physiology, Nutritional biochemistry, Nutritional education, Clinical nutrition, Functional food, Lifestyle-related disease, Health promotion, Aging, etc.

1001 : Information science, computer engineering, and related fields

Examples of related research content

Theory of informatics-related

Discrete structure, Mathematical logic, Theory of computation, Mathematical theory of programs, Computational complexity theory, Algorithm theory, Information theory, Coding theory, Theory of cryptography, Learning theory, etc.

Mathematical informatics-related

Optimization theory, Mathematical systems theory, System control theory, System analysis, System methodology, System modeling, System simulation, Combinatorial optimization, Queueing theory, Mathematical finance, etc.

Statistical science-related

Statistics, Data science, Modeling, Statistical inference, Multivariate analysis, Time series analysis, Statistical quality control, Applied statistics, etc.

Computer system-related

Computer architecture, Circuit and system, LSI design, LSI testing, Reconfigurable system, Dependable architecture, Low power technology, Hardware/software codesign, Embedded system, etc.

Software-related

Programming language, Programming methodology, Operating system,

Parallel and distributed computing, Software engineering, Virtualization technology,

Cloud computing, Software dependability, Software security, etc.

Information network-related

Network architecture, Network protocol, Internet, Mobile network, Pervasive computing, Sensor network, IoT, Traffic engineering, Network management, Service platform technology, etc.

Information security-related

Cryptography, Tamper resistance technology, Authentication, Biometrics, Access control, Malware countermeasure,

Countermeasures against cyber attacks, Privacy protection, Digital forensics, Security evaluation and authorization, etc.

Database-related

Data model, Database system, Multimedia database, Information retrieval, Content management, Metadata, Big data, Geographic information system, etc.

High performance computing-related

Parallel processing, Distributed processing, Cloud computing, Numerical analysis, Visualization, Computer graphics, High performance computing application, etc.

Computational science-related

Mathematical engineering, Computational mechanics, Numerical simulation, Multi-scale modeling, Large-scale computing, Massively parallel computing, Numerical computing methods, Advanced algorithms, etc.

	Examples of related research content
Perc	eptual information processing-related
Patte	rn recognition, Image processing, Computer vision, Visual media processing,
Acou	istic media processing, Media editing, Media database, Sensing, Sensor fusion, etc.
Hum	an interface and interaction-related
Hum	an interface, Multi-modal interface, Human-computer interaction,
Com	puter supported cooperative work, Virtual reality, Augmented reality,
Real	istic communication, Wearable device, Usability, Ergonomics, etc.
Intel	igent informatics-related
	ch, Inference, Machine learning, Knowledge acquisition, Intelligent system,
Intel	ligent information processing, Natural language processing, Data mining, Ontology, Agent sy
etc.	
	computing-related
	al network, Evolutionary computation, Fuzzy theory, Chaos, Complex systems,
Prob	abilistic information processing, etc.
Intel	igent robotics-related
	ligent robotics-related
	nomous system, Digital human, Real world information processing, Physical agents,
	ligent space, etc.
	ei informatics-related
	ei design, Kansei cognitive science, Kansei psychology, Kansei robotics,
	ei measurement evaluation, Kansei interface, Kansei physiology,
	ei material science, Kansei pedagogy, Kansei brain science, etc.
	gn-related
	mation design, Environmental design, Industrial design, Spatial design, Design history,
	ry of design, Design standard, Design support, Evaluation of design, Design education, etc.
Cogi	nitive science-related
	nitive science in general, Cognitive models, Kansei, Human factors, Cognitive and brain scien
•	parative cognition, Cognitive linguistics, Cognitive engineering, etc.
Life	health and medical informatics-related
	nformatics, Life informatics, Biological information, Neuroinformatics,
	al information processing, Molecular computing, DNA computing, Medical information,
	th information, Medical image, etc.
	informatics and service informatics-related
	system, Semantic web, Web mining, Social network analysis, Service engineering,
	ational service, Medical service, Welfare service, Social service, Information culture, etc.
Lear	ning support system-related
	ia literacy, Learning media, Social media, Learning content, Learning management,
	ning support, Remote learning, e-Learning, etc.
	rtainment and game informatics-related
	c information processing, 3D content, Animation, Game programming, Network entertainme
	ia art, Digital museum, Experience design, etc.
	ary and information science, humanistic and social informatics-related
	ry science, Information science, numanistic and social informatics-related
	ometrics, Information resources, Information organizing, Information retrieval,
	ves, etc.

	Examples of related research content
Env	vironmental dynamic analysis-related
	bal warming, Environmental change, Water and material cycle, Ocean, Land, Polar regions,
	vironmental measurements, Environmental model, Environmental information, Remote sensing, etc
Rad	liation influence-related
Rad	liation, Measurement, Control, Repair, Biological effects, Risk, etc.
Che	emical substance influence on environment-related
Тох	ticology, Toxic substance to human, Trace chemical substance, Endocrine disruptor, Repair, etc.
Env	vironmental impact assessment-related
Atn	nosphere, Hydrosphere, Terrestrial impact, Impact assessment on human health,
	ial and economic impacts, Impact assessment on the future generation,
	vironmental impact assessment, Assessment methods, Monitoring, Simulation, etc.
	vironmental load and risk assessment-related
	vironmental analysis, Environmental load analysis, Environmental monitoring, Pollution dynamics
	essment,
	luation of radioactive substances dynamics, Environmental modeling, Exposure assessment, Toxic
	luation,
Env	vironmental assessment, Chemical substance management, etc.
Env	rironmental load reduction and remediation-related
	noval of contamination, Treatment of waste material, Control of contamination source,
	posal of waste material, Environmental load reduction, Remediation measure of contamination,
	se and vibration reduction, Countermeasure of ground settlement, Bioremediation,
	lioactive decontamination, etc.
	vironmental materials and recycle technology-related
	cycle materials, Valuable materials recovery, Separation, refining and purification,
	vironment-conscious design, Recycle chemistry, Green production, Zero emission,
	ource circulation, Renewable energy, Biomass utilization, etc.
	ial-ecological systems-related
	diversity, Conservation biology, Natural capital, Impact of climate change, Impact analysis on
	system,
	system management, Ecosystem restoration, Ecosystem services, Natural tourism resources,
	gional environmental planning, etc.
	and material-cycle social systems-related
	and material-cycle systems, Material and energy budget analysis, Low carbon society,
	used energy, Regional revitalization, Water use system, Industrial symbiosis,
	e cycle assessment (LCA), Integrated environmental management,
	(reduction, reuse, recycle) social systems, etc.
	vironmental policy and social systems-related
	vironmental philosophy and ethics, Environmental laws, Environmental economics, Environmental
	prmation,
	rironmental education, Environmental activities, Environmental management and governance, Soci
	public system, Consensus forming, Sustainable development, etc.

(Reference 1) Procedures on the Handling of Grants-in-Aid for Scientific Research Omitted

(Reference 2) Procedures on the Handling of JSPS Grants-in-Aid for Scientific Research (KAKENHI (Multi-year Fund)) Omitted

Inquiries

1. Inquiries about the invitation of applications should be directed to the following divisions through the research institution.

(1) For inquiries concerning the invitation of applications General inquiries about the Application Procedures

Research Aid Division I, Research Program Department, JSPS Telephone: 03-3263-4724, 0996

* Available every day except on Saturdays, Sundays, National Holidays, the New Year Holidays (from December 29 until January 3), and the Anniversary of the Foundation of JSPS (September 21).

(2) For inquiries concerning the use of the KAKENHI Electronic Application System

Call center

- Telephone: 0120-556-739 (toll-free)
- * Available from 9:30 to 17:30 every day except Saturdays, Sundays, National Holidays and the New Year Holidays (from December 29 until January 3)

(3) For inquiries concerning the use of the Cross-ministerial Research and Development Management System (e-Rad)

Helpdesk of the Cross-ministerial Research and Development Management System (e-Rad) of MEXT

Telephone: 0570-057-060 (Navi Dial)

- * Available from 9:00 to 18:00 except on Saturdays, Sundays, National Holidays and the New Year Holidays (from December 29 until January 3)
- * The following phone numbers are also available. 03-6631-0622

< Important points >

 How to operate e-Rad Manuals on how to operate e-Rad can be referred or downloaded from the portal site (URL: <u>https://www.e-rad.go.jp</u>). Please agree to the terms of service and apply.

② Time period when e-Rad is available (Monday to Sunday) 00:00 - 24:00 (in operation 24 hours a day, 365 days a year) However even during the above-mentioned time period, the operation of e-Rad may be disrupted or suspended, when maintenance and inspection is being carried out. If the operation is scheduled to be disrupted or suspended, this will be announced beforehand on the portal site.

(4) For matters related to the "Self-Assessment Checklist on the Improvement of the System" based on the "Guidelines on the Management and Audit of Public Research Funds at Research Institutions (Implementation Standards)"

Competitive Research Funding Administration, Research Environment Division, Science and Technology Policy Bureau (MEXT)

Telephone: 03-5253-4111 (ext. 3866, 3827)

e-mail : kenkyuhi@mext.go.jp

(5) For matters related to the "Checklist Pertaining to the Current Status" based on the "Guidelines for Responding to Misconduct in Research"

Office for Research Integrity Promotion, Research Environment Division, Science and Technology Policy Bureau (MEXT) Telephone: 03-6734-3874 e-mail : jinken@mext.go.jp

(6) For matters related to use of support by Platform formed by "Foundation of Scientific Research Support"

Grants-in-Aid for Scientific Research Team, Scientific Research Aid Division,Research Promotion Bureau, MEXT Telephone: 03-6734-4087

(7) For matters related to "the National Bioscience Database"

National Bioscience Database Center, Japan Science and Technology Agency (JST) Telephone: 03-5214-8491

(8) For matters related to the "Inter-University Bio-Backup Project"

Executive Office, IBBP Center, Inter-University Research Institute Corporation National Institutes of Natural Sciences

Telephone: 0564-59-5930, 5931

(9) For matters related to the "National BioResource Project"

National BioResource Project (NBRP) Executive Office

(established in the Research Organization for Information and Systems, National Institute of Genetics)

Telephone: 055-981-6809

(10) For matters related to the "researchmap"

Service Support Center (in charge of the researchmap), Department of Information Infrastructure, National Institute of Advanced Industrial Science and Technology (JST) Web inquiry form: <u>https://researchmap.jp/public/inquiry/</u>

(11) For matters related to the "Security Export Control Policy"

Security Export Control Administration Division, Trade Control Department, Trade and Economic Cooperation Bureau, Ministry of Economy, Trade and Industry Telephone: 03-3501-2800

2. Application forms (Research Proposal Document) and other application materials can be downloaded from the following website.

JSPS's website on Grants-in-Aid for Scientific Research

URL : <u>https://www.jsps.go.jp/j-grantsinaid/index.html</u> [Japanese]

URL : <u>https://www.jsps.go.jp/english/e-grants/index.html</u> [English]