



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

FY2021

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, 2021

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 FY2021” 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 Grant Recipients**
- V Instructions for Administrative Staff of Research Institution**
- VI 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”, “IV Instructions for Grant Recipients” and “V 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 FY2021, 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 FY2021 Call for Proposals are listed on the following pages.

- Grants-in-Aid for Scientific Research is a competitive 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. In preparing Research Proposal Document, plagiarism and/or misappropriation of the research contents of others are strictly impermissible. Applicants must comply with research ethics.
- 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).

<Major Changes in the Call Proposals for Fiscal Year 2021 >

- (1) Improvement of the Competitive Research Fund System on the Basis of the “Comprehensive Package to Strengthen Research Capacity and Support Young Researchers”
 - Starting from the FY2021 Call for Proposals, the cost of “buyout”, *i.e.* 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 of KAKENHI. This amendment is put into operation according to the “Adjustment Enabling Direct Expense of Competitive Research Funds to Cover the Costs of Assignments Other Than Research (Introduction of Buyout System)” (May 22, 2020, Agreement among Research Promotion Bureau, Science and Technology Policy Bureau, Research and Development Bureau and Higher Education Bureau). (See page 31)
 - Having started in April 2020, a young researcher employed with a KAKENHI grant is allowed to conduct his/her own research, under certain conditions, even within the assigned working hours of the KAKENHI project. This amendment has been put in operation according to the “Implementation Guidelines for Self-motivated Research Activities by Young Researchers Employed with Competitive Research Funds” (February 12, 2020, Agreement of the Liaison Meeting of Related Offices and Ministries on Competitive Research Funds). (See page 19)

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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 FY2021; (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).

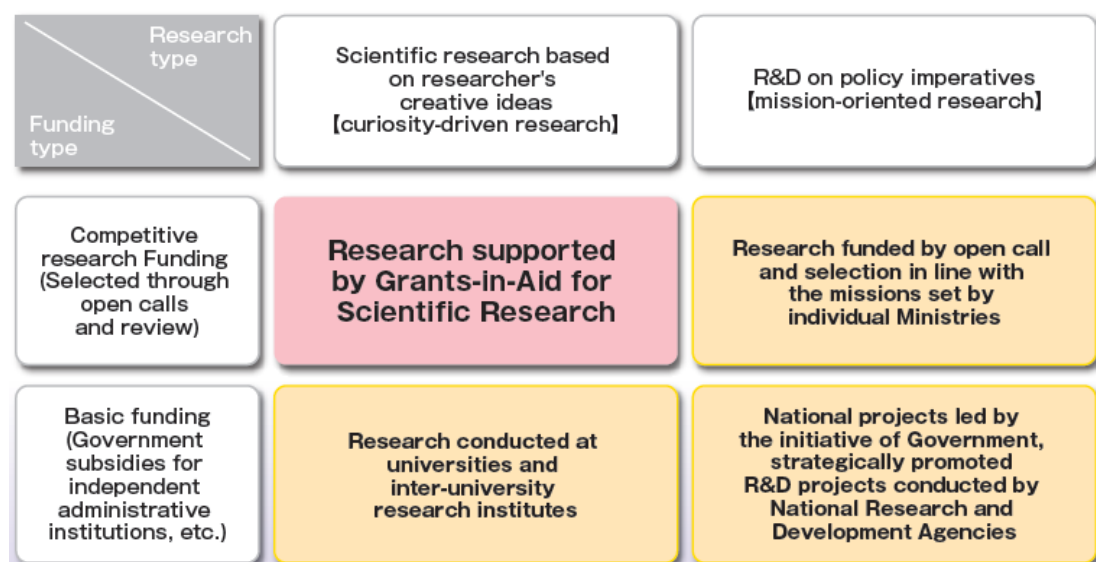
URL: https://www.jsps.go.jp/j-grantsinaid/22_startup_support/download.html

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 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 2021

Research categories	Purposes and description of each research category	Type of fund*1
Grants-in-Aid for Scientific 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.)	SG
Grant-in-Aid for Scientific Research on Innovative Areas (Research in a Proposed Research Area)	This category is intended to foster novel research areas proposed by diverse groups of researchers that are expected to lead to development and heightening of Japan's research level in the respective fields, to be conducted by collective research efforts through collaboration, scholarly training, shared use of equipment, etc. The period is 5 years. The budget range is generally set between 10 million to 300 million yen per fiscal year per proposed area. [A call for proposals for “Publicly Offered Research” in the on-going research areas only is put out in FY2020 and beyond.]	SG

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 with a smaller budget scale (about 3 or 4 groups), 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 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)	SG	
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	(S)	SG
		(A)	
		(B)	
		(C)	MF
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 freshly appointed to a research position, or who has returned from his/her maternity, childcare or other kinds of leave. Up to 2 years; Up to 1.5 million per fiscal 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 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.	SG	
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.		
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). As for Cross-border Postdoctoral Fellowship (CPD) the period is up to 5 years	SG	
Fund for the Promotion of Joint International Research			MF

Fostering Joint International Research	(A) 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 is changed from FY2018 call for proposals.] (B) Support of joint international research project conducted by multiple domestic researchers and a researcher who belongs to overseas research institution. In addition to the development of scientific research, the grant seeks to build out infrastructure of joint international research or further strengthen joint international research and to foster researchers who can be internationally competitive. (The period is 3 to 6 years. The budget is up to 20 million yen.)	
International Activities Supporting Group	Support of international activities within Scientific Research on Innovative Areas. (Set period of the Area, up to 15 million yen per fiscal year) [After FY2018 call for proposals “International Activities Supporting Group” has been incorporated into “Grant-in-Aid for Scientific Research on Innovative Areas “Administrative Group.” (It continued until the FY2019 call for proposals.)]	
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 Individuals who are in the prospect of acquiring Ph.D. are also eligible. When counting the years after Ph.D. acquisition, the period of maternity leave and childcare leave can be excluded.

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.

❖ As of March 2021

Research category	Call for proposals, Review	Grant delivery
	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, Special Purposes, Fund for the Promotion of Joint International Research (International Activities Supporting Group)	MEXT	JSPS
Specially Promoted Research, Scientific Research, Challenging Exploratory Research, Challenging Research, Early-Career Scientists, Research Activity Start-up, Encouragement of Scientists, Publication of Scientific Research Results, JSPS Research Fellow, Fund for the Promotion of Joint International Research (Fostering Joint International Research, Home-Returning Researcher Development Research), Generative Research Fields	JSPS	JSPS

4. Rules Pertaining to KAKENHI

KAKENHI (Series of Single-year Grants) 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.

KAKENHI (Multi-year Fund) 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.

【Grants-in-Aid for Scientific Research】

❖ As of March 2021

	Application Rules	Assessment Rules	Spending Rules
KAKENHI (Series of Single-year Grants)	MEXT Application Procedures	MEXT Rules concerning the assessment for Grants-in-Aid for Scientific Research	JSPS For researchers: Supplementary conditions For research institutions: Administrative work and other tasks concerning the use of Grants-in-Aid for Scientific Research (KAKENHI (Series of Single-year Grants)), to be performed by each research institution
KAKENHI (Multi-year Fund)	JSPS Application Procedures	JSPS Rules concerning the review and assessment for Grants-in-Aid for Scientific Research *The review and assessment rules for FY2021 are scheduled to be made public in early October.	JSPS For researchers: Funding conditions For research institutions: Administrative work and other tasks concerning the use of Grants-in-Aid for Scientific Research (KAKENHI (Multi-year Fund)), to be performed by each research institution

(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. To prevent improper business transactions, it is important, in addition to appropriate delivery inspections, to make all traders thoroughly informed of the KAKENHI rules and thus obtain cooperation of traders in the prevention of this kind of fraudulent accounting. Research institutions should take rigorous measures so as to eliminate business malpractice.

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)

A research project submitted to the categories of KAKENHI (Series of Single-year Grants), if adopted, 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.

On the other hand, the KAKENHI (Multi-year Fund) is 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”

- 1) 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 Funding”, etc.

The “Guidelines on the Proper Implementation of Competitive Funding” (Agreement of the Liaison Meeting of Related Offices and Ministries on Competitive Research Funds, September 9, 2005; revised June 22, 2017) 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 activities. The implementation of the KAKENHI system as well as other competitive funding 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

- i) Towards elimination of “Unreasonable Duplication and/or Excessive Overconcentration” (*) of competitive 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 grants, 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.

- ii) Untruthful statement or misrepresentation of the status of applications and acquisitions of other KAKENHI grants and other competitive funds in the application form, may result in cancellation of grant or reduction of the research budget.

(*) Elimination of Unreasonable Duplication and Excessive Overconcentration in Grant Allocation

**“Guidelines on the Proper Implementation of Competitive Funding” -Extract-
(Agreement of the Liaison Meeting of Related Offices and Ministries on Competitive Research Funds, September 9, 2005; revised June 22, 2017)**

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 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 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 funding 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 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 funds in violation of the content of the funding decision or the conditions it implies

• “Fraudulent Grant Acquisition”:

Receiving 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.

(i) **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 funding 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 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 FY2021 (and onward) for competitive funding 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 FY2020. Refer to the website below for the schemes to which this specifically applies at present.

URL: https://www8.cao.go.jp/cstp/compefund/kyoukin_r1-2.pdf

○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
II. Researchers who committed improper grant spending of KAKENHI and researchers who conspired in such acts	2. Other than 1.	(i) Cases of major seriousness and maliciousness	5 years
		(ii) Cases other than (i) and (iii)	2 to 4 years
		(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.	-		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		Negative Impacts on Science and on Public at Large Degree of Maliciousness	Period of KAKENHI Suspension	
Subject of Research Misconduct	(a) Particularly malicious individual(s) who, for example, had intention of research misconduct from the very beginning of the research		10 years	
	(b) Author(s) of paper(s), etc. related to the research in which research misconduct (s) have been identified (other than (a) above)	Responsible author(s) of the paper(s) in question (corresponding author, lead 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 major, or the level of maliciousness involved in the acts is high	5 to 7 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 minor, or the level of maliciousness involved in the acts is low	3 to 5 years
		Author(s) of the paper(s) in question other than the responsible author(s) described above		2 to 3 years
	(c) Individual(s) involved who are not the authors of the research paper(s) for which research misconduct(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		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.

- (ii) 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 and Ministries and the Ministry of Education, Culture, Sports, Science and Technology. Thereby the penalized researcher may be also subject to restriction in application of and/or participation to research projects in other competitive 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).

- (iii) 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 18, 2014), 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”

URL: https://www.mext.go.jp/a_menu/kansa/houkoku/1343904.htm

- “Guidelines for Responding to Research Misconduct”

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

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

○ 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 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.

○ Fraudulent grant acquisition

- A researcher ineligible for the KAKENHI funding made application and acquired a KAKENHI grant.

○ 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 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.

To promote dissemination of research achievements, the KAKENHI can be used to cover such outreach-related expenses as preparation of website or printing of pamphlets. The KAKENHI grantees are urged to actively pursue public promotion of their research achievements through the aid of KAKENHI so as to make them widely known to the public at large.

In this connection, the KAKENHI grantees are encouraged to participate in the “HIRAMEKI ☆ TOKIMEKI SCIENCE” program, in which the latest science developments are presented to elementary, junior high and high school students in an easy-to-understand style.

In addition, 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” 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 JP12K4567.

【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 or 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

The Japan Society for the Promotion of Science (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.

○The open access implementation policy of JSPS is given on the following webpage:

URL: https://www.jsps.go.jp/data/Open_access.pdf

[Reference 1: 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 on line.

[Reference 2: 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.

7. 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 the Japan Society for the Promotion of Science (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 34)

**[Extraction from the Statement “Code of Conduct for Scientists – Revised Version –”
by the Science Council of Japan dated on 25 January 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 Japan Society for the Promotion of Science (JSPS)]

(Japanese version (text version)) (“For the Sound Development of Science” Editorial Committee on JSPS)

* URL: <https://www.jsps.go.jp/j-kousei/data/rinri.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 project carried out by one researcher (Principal Investigator) who was unable to apply for a Grants-in-Aid during the previous year's fall application period. The project should contain excellent concepts expected to lead to future research advances by way of the grant support given to its initial research activities.

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

Up to 1.5 million yen for each year. Up to 1.5 million yen for a research period of one year.

iii) Research period: 1 to 2 years

vi) Important points:

Applicants must satisfy one of the following two requirements, A) or B), besides meeting the application eligibility requirements. (See page 18-22)

A) An individual who could not submit a KAKENHI proposal, because he/she obtained the eligibility for KAKENHI application (See page 18-22) only after the application deadline (November 5, 2020) to the research categories (*) of which the Call for Proposals is announced in September 2020 by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) and by the Japan Society for the Promotion of Science (JSPS).

B) An individual who could not submit a KAKENHI proposal to the research categories(*) for which the call for proposals is announced in September 2020 by MEXT and JSPS, because he/she was on a leave of absence for childcare etc. in FY2020.

(*) Pertinent FY2021 Grants-in-Aids: "Grant-in-Aid for Scientific Research on Innovative Areas", "Grant-in-Aid for Specially Promoted Research", "Grant-in-Aid for Scientific Research", "Grant-in-Aid for Challenging Research", and "Grant-in-Aid for Early-Career Scientists".

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 page28), 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 FY2020 should submit them in FY2021 format after April 1, 2021 onwards.

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

The schedule below is as of March 1, 2021. There may be changes in the plan including the timing of the provisional grant decision due to COVID-19. When the changes occur it will be announced on the JSPS website and through the research institutions.

June-August 2021:	Review
Late August:	Provisional grant decision
Late August:	Disclosure of review results
Middle of September:	Formal application for grant delivery
Early October:	Official grant decision
Late October:	Grant delivery

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 (*) 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.

< 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.)

*: 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)

(Reference) Requirements that the research institution must meet (See page 38):

< 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 researcher staffs.

(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 contracts. 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 as of April 1 of each fiscal year, 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.

(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)

https://www.jsps.go.jp/j-grantsinaid/06_jsps_info/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” (February 12, 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_00001.htm

<Important Point 2>

JSPS Research Fellow (SPD, PD, RPD or CPD) cannot apply for a Grant-in-Aid for Research Activity Start-up. Also, JSPS Research Fellow (DC), and JSPS International Research Fellows are not eligible for KAKENHI application. In general, graduate students are not eligible either. (See the note below for exceptions.) Therefore, an individual with the status of student in a research institution is not eligible even if he/she also holds a position to conduct research in that or other research institution.

(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.

Requirements:

- A) An individual who could not submit a KAKENHI proposal, because he/she obtained the eligibility for KAKENHI application only after the application deadline (November 5, 2020) to the research categories of which the Call for Proposals is announced in September 2020 by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) and by the Japan Society for the Promotion of Science (JSPS).
- B) An individual who could not submit a KAKENHI proposal to the research categories for which the Call for Proposals is announced in September 2020 by MEXT and JSPS, because he/she was on a leave of absence for childcare etc. in FY2020.

[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 November 6, 2020 (after the deadline for the

2021 application period).

- 2) Persons who were hired as educational specialist without KAKENHI eligibility, then hired as researcher on or after November 6, 2020, 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 November 6, 2020.

Condition “B)”

Persons who were not able to apply in September 2020 for a Grant-in-Aid (KAKENHI) because they were taking maternity and/or childcare leave during FY 2020.

* This applies regardless of whether or not you took maternity and/or childcare leave during the September 2020 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 November 5, 2020 (FY2021 application deadline for Grants-in-Aid), or if a researcher satisfies Condition B), his/her research institution must prepare the “Background Description” and submit it to JSPS by 4:30 pm May 6, 2021 (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.

Note 1 If a person does not satisfy one of the eligibility conditions, the mere submission of the “Background Description” 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, it is important for the researcher to ascertain proper registration of his/her Researcher Information in the e-Rad system.

The registration in the e-Rad system is handled by the research institution 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.

(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. Every researcher should exercise due care in handling his/her ID and password so as to prevent their leakage and abuse.

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.

- 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).
- 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

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. 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 Funding” (see page 6), 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) **Under the “Grant-in-Aid for Research Activity Start-up,” an individual researcher may apply as the Principal Investigator for only one research application.**
- (ii) Principal Investigators of other KAKENHI projects during FY 2021 (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 FY2021 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 under the FY2021 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) When a PI of an on-going project of KAKENHI (Multi-year Fund) or KAKENHI (Partial 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.
- (iv) Even when a researcher is eligible to apply for the “Grant-in-Aid for Research Activity Start-up,” if he/she is being funded (or will be funded) under the “Grant-in-Aid for Home-Returning Researcher Development Research,” he/she may not apply for the Start-up grant.

(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.
- (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 FY2021.
- (v) Although there is no restriction on duplicate applications between the KAKENHI program and other competitive funding schemes, applicants should take into account the stipulations in the “Elimination of Unreasonable Duplication and/or Excessive Overconcentration in the Grant Allocation” (see pages 7) when applying.

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

Grants-in-Aid for Scientific Research is a competitive 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.

In preparing Research Proposal Document, plagiarism and/or misappropriation of the research contents of others are strictly impermissible. Applicants must comply with research ethics.

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) Revision of the Research Proposal Document

As for the Research Proposal Document, in the Reform of the KAKENHI Review System, since

April 2018. On and after the FY2019 call for proposals in September 2018, the revision including the way to describe the achievements in the column of research achievements has been made, and with the Research Proposal Document some changes such as followings have been applied. When preparing the Document, your careful confirmation is requested on the contents of the booklet, the Application Procedures for Grants-in-Aid for Scientific Research-KAKENHI (Supplement) “Forms/Procedures for Preparing and Entering a Research Proposal Document”.

- The “Applicant’s Hitherto Research Activities” column and “Research Achievements of the Principal Investigator (PI)” column in the Research Proposal Document are to be revised as the “Applicant’s Ability to Conduct the Research and the Research Environment” column in accordance with the rating elements.

Furthermore, the summary on the discussion related to this revision such as in the Subdivision on Research Grant Screening Section of the Academic Deliberation in the Science, Council for Science and Technology is as follows.

(Reference) The summary on the discussion including in the Subdivision on Research Grant Screening Section of the Academic Deliberation in the Science Division, Council for Science and Technology

(Problem recognition, etc.)

- During the review process, there seems to be a reality which is easily enable to distort what an application and a review per se should be, including the possibility to enumerate unnecessarily the achievements irrelevant to the research project in the “Research Achievements” column.
- There seems to be a possibility that the “Research Achievements” column gives a wrong recognition that without filling in the column spaces with many of research achievements as possible, it might be disadvantage for applicants at the review.
- There is still a room for consideration on the “way to make applicants describe” their research achievements and so on although it is necessary to verify them to assess their ability to conduct the research corresponding to the shared responsibility of the Principal Investigator and the Co-Investigators.
- If there might be a possibility to provide applicants and others with a recognition that as if a performance over-emphasis principle be prevailing at the review in the KAKENHI, a rectification of it should be attempted as far as possible and a consideration to contrive to do so is required.
- In case making continuous use of the “Research Achievements” column, a consideration enabling applicants to properly describe information necessary to assess their ability to conduct the research is required. (An impression as if the “filling in the column is just an important thing” should be dispelled.)
- Regarding the assessment on the ability to conduct the research by using such as the research achievements, an attempt to foster a correct recognition for both sides of applicants and reviewers is required.

(Basic policy, etc. for the revision of the Research Proposal Document)

- At the review of the KAKENHI, as for research projects proposed by the Principal Investigator, in association with considering a scientific significance and creativity, a clarification of research objectives and so on, it is also intended to assess the researchers’ ability to conduct the research strictly and to select appropriate research projects.
- The positioning of the research achievements in the Research Proposal Document is for judging a practical feasibility of the research described in the Research Proposal Document before rolling out the research.
- Based on the understandings above, the research achievements should be clearly defined that they are regarded as verifying the ability to conduct the research for the research plan.

(2) Preparation of KAKENHI Research Proposal Document

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

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.”, “Research Development Leading to Conception of the Present Research Proposal, etc.” to be prepared by downloading the form from the “Grants-in-Aid for Scientific Research -KAKENHI-” page within the JSPS website (URL: https://www.jsp.go.jp/j-grantsinaid/22_startup_support/download.html), 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 category Application Section	Research Proposal Document		
	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 (Title of research project, 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: https://www.jsp.go.jp/j-grantsinaid/22_startup_support/download.html) even before the obtaining of the e-Rad ID and password.

(3) 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 “FY2021 Procedures for Preparing and Entering a Research Proposal Document” and

“FY2021 Procedures for Preparing and Entering a Research Proposal Document (Items to be entered in the Website)”.

(ii) The compiled books of the submitted KAKENHI Research Proposal Documents to be sent to the reviewers are in black-and-white (gray scale) print. Therefore, in preparing the Research Proposal Document, the applicant should pay attention to the clarity of the figures when printed in gray scale.

(iii) 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, no further corrections or modifications to the submitted Research Proposal Document (PDF file) is possible.

(iv) The personal information included in the Research Proposal Document will be used for the elimination of “unreasonable duplication and/or excessive concentration in the allocation of competitive funds” and for the appropriate funding of KAKENHI grants. (This includes providing the data to external contractor(s) in charge of electronic processing and management of the KAKENHI data.) The information included in the Research Proposal Document is to 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 (iii) above) with full understanding of the information

handling (utilization, provision and disclosure) stated above.

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”.

(1) 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 than 100,000 yen.

(2) Eligibility of the Project Members

The PI (see 1 below) may organize a research team with appropriate combination of Research Collaborators(s) (see 2 below), 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.

(i) Principal Investigator (PI) (Applicant)

A) 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.

B) 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 funds.

(ii) Research Collaborator

A) Research Collaborator is an individual who cooperates in the implementation of a research project other than the PI.

B) 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), a JSPS Research Fellows (DC), JSPS Research Fellows (SPD, PD, RPD or CPD) 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.

(3) 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) can be covered by the direct expense.

* 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, 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, Fostering Joint International Research (B), 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, Scientific Research on Innovative Areas (Research in a Proposed Research Area) (Platforms for Advanced Technologies and Research Resources), Fostering Joint International Research (A) (including the Joint International Research before name change). As for the research category of Fostering Joint International Research (A) (including the Joint International Research 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)" (May 22, 2020, Agreement among Research Promotion Bureau, Science and Technology Policy Bureau, Research and Development Bureau and Higher Education Bureau)

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

The following kinds of spending 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.

(4) Selection by the Applicant of a Desired Review Section in the Review Process

The applicant should select one of the review sections from Attached Table 1 “Grants-in-Aid for Scientific Research-KAKENHI-“Research Activity Start-up FY2021” Review Section Table” as a suggested review section for his/her research proposal.

Furthermore, Table 2 “Research Activity Start-up FY2021 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.

4. 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 FY2021 Grants-in-Aid for Scientific Research, and upon the formal application for a grant delivery, it shall be confirmed through the electronic application system whether they will have taken the research ethics education coursework, etc.

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.

5. Registration of the Researcher Information in “researchmap”

The “researchmap (<https://researchmap.jp/>)” 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: <https://researchmap.jp/public/inquiry/>

6. 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 7,000 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 (126,000 entries as of FY2019) and has utilized it so as to select the fair and excellent reviewers. The request to update the registered information is made through the researchers’ research institutions every April (planned), researchers’ cooperation for updating is also well appreciated.

IV. Instructions for Grant Recipients

1. Handling of a Research Project to Be Continued in FY2021 (hereinafter referred to as “continued research project”)

For a continued research project, the PI does not need to submit any application form afresh. However, he/she has to prepare and submit the necessary documents, including the form of the request for payment.

[Relaxation of Restrictions on Simultaneous Receipt of a Grant in the “Research Activity Start-up” Category and Grants in Other Research Categories]

The recipient of a “Research Activity Start-up” grant can submit new KAKENHI proposal(s) to the “Scientific Research” and other research categories in subsequent fiscal years. However, formerly he/she was not allowed to receive the both grants simultaneously if the latter application(s) were adopted. (In that case, the second fiscal year grant for the “Research Activity Start-up” would not be delivered.)

From FY2020 the restrictions on parallel grant application to on parallel grant receipt of “Grant-in-Aid for Research Activity Start-up” and other research categories are relaxed, the recipient of a “Research Activity Start-up” grant can newly receive grant(s) in the “Scientific Research” and other research categories in the same fiscal year if the latter are adopted, without giving up the former.

2. Handling of Continued Research Projects Whose PI Fails to Submit the Report on the Research Achievements of his/her Other KAKENHI Project

As is the case for new proposal submissions, no KAKENHI will be delivered to a researcher who fails to submit the Report on the Research Achievements at the end of the research period, without any justifiable reason. In such cases, a cancellation of the official grant decision and an order for refund of the grant may be issued. In addition, the information such as the name of the research institution of the said researcher may be made public.

Furthermore, if a researcher fails to submit the scheduled Report on the Research Achievements without any justifiable reason, then he/she may be ordered to suspend the spending of his/her other KAKENHI grant(s) for the same fiscal year.

3. Completion of Research Ethics Education Coursework, etc.

The PI should check with the administrative section of his/her institution about the rules concerning the research ethics education coursework, etc. For a continued research project upon the request for payment, it shall be confirmed through the electric application system whether the Principal Investigator will have taken the research ethics education coursework, etc.

V. 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 7,000 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 one hundred thousand 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 number may be attributed to the fact that some research institutions seem to set the KAKENHI application as one of their organizational activity indicators. Application for the KAKENHI grant per se should be made on the basis of the initiative of the researchers. 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.

Moreover, 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 Aid Division of the Research Promotion Bureau of the 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 research institution 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

Researchers who intend to apply for KAKENHI should meet the requirements (i) and (ii) below. Also, Researchers applying for a “Grant-in-Aid Research Activity Start-up” must at the time of application be eligible to apply for a KAKENHI grant, and must also satisfy one of the two conditions stipulated on the following page. Therefore, they should sufficiently verify these requirements with the research institution.

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

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

<Requirements>

- (i) The applicant must be an individual belonging to a research institution with job assignment including 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.)
- (ii) The applicant must be actually engaged in research activity in his/her research institution. (Those who are only engaged in research assisting jobs are ineligible.)
- (iii) The applicant must not be a graduate student or any other categories of student. (However, an individual who has a position in a research institution with research activity as his/her main job (e.g., university teaching staff, researcher belonging to a company, etc.) and holds a student status at the same time is eligible.)

(2) The individual must not be categorized as ineligible for grant acquisition in the fiscal year Subjected to the call for proposals, as a penalty for his/her improper grant spending, fraudulent grant acquisition, or research misconduct.

<Important point 1>

KAKENHI employee whose personnel cost is covered with the KAKENHI fund is generally bound by their employment contract to concentrate on the research work relevant to the employment-related work specified in his/her employment contracts. 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 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 the KAKENHI employee's 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 an “early-career scientist” employed with KAKENHI]

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) The young researcher desires on his/her own will to conduct his/her own research.
- (2) The PI or Co-I (the employer of the young researcher) decides 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 decision.
- (3) The PI or Co-I judges that the efforts to be spared by the young researcher to the said research is 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 as of April 1 of each fiscal year, and whose job assignment includes research activities.

When applying for Grants-in-Aid for Scientific Research (KAKENHI) he/she must meet the eligibility requirements for KAKENHI application.

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

Attachment to the "Proposals of the Grants-in-Aid for Scientific Research (KAKENHI) in Fiscal Year 2020 " (March 19, 2020) (Excerpt)
https://www.jsps.go.jp/j-grantsinaid/06_jsps_info/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" (February 12, 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_00001.htmhttps://www.mext.go.jp/amenu/shinkou/torikumi/1385716_00001.htm

Requirements:

- A) An individual who could not submit a KAKENHI proposal, because he/she obtained the eligibility for KAKENHI application only after the application deadline (November 5, 2020) to the research categories of which the Call for Proposals is announced in September 2020 by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) and by the Japan Society for the Promotion of Science (JSPS).
- B) An individual who could not submit a KAKENHI proposal to the research categories for which the Call for Proposals is announced in September 2020 by MEXT and JSPS, because he/she was on a leave of absence for childcare etc. in FY2020.

*Please refer to page 21-22 for examples of applicants with eligibility.

<Important point 2>

JSPS Research Fellow (SPD, PD, RPD or CPD) cannot apply for a Grant-in-Aid for Research Activity Start-up. Also, JSPS Research Fellow (DC), and JSPS International Research Fellow cannot apply for a Grant-in-Aid. In general, graduate students are not eligible either. (See the note below for exceptions.) Research institutions should bear in mind that graduate or other students are also not eligible to apply, even if they hold a position and conduct research activities in the research institution.

(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.

(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 6, 2021. The deadline for receipt of the form is 4:30 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 November 5, 2020 (FY2021 application deadline for Grants-in-Aid), 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.

https://www-shinsei.jsps.go.jp/kaken/topkakenhi/syozoku_ka.html

(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.

- i) 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.” (<https://www.e-rad.go.jp/organ/entry.html>) 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.

(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 18, 2014.) (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 Institutions (Implementation Standards)” (hereinafter referred to as “Self-Assessment Checklist on the Improvement of the System”).

Therefore, “those research institutions which Principal Investigators applying for KAKENHI in FY2021 belong to” and “those research institutions which Principal Investigators continuing research projects using KAKENHI are scheduled to belong to in FY2021” **must submit in accordance with the procedure and forms posted on the MEXT website**

(URL: http://www.mext.go.jp/a_menu/kansa/houkoku/1324571.htm) the “Self-Assessment Checklist on the Improvement of the System” to the Office of Research Funding Administration, Promotion Policy Division, Research Promotion Bureau of the MEXT via e-Rad. If the “Self-Assessment Checklist on the Improvement of the System” was not submitted on or after April 2020, it should be submitted by May 10, 2021 (Monday). If the “Self-Assessment Checklist on the Improvement of the System” has already been submitted in April 2020 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 FY2020, if they submit one on or after April 1, 2021, they should submit a “Checklist pertaining to the Current Status” for FY2021.

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

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

< Inquiries >

(Concerning forms and submission of the Guidelines on Public Research Funds)

Office of Research Funding Administration, Promotion Policy Division, Research Promotion Bureau, MEXT

e-mail: kenkyuhi@mext.go.jp

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

(Concerning the research institute e-Rad registration)

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

Telephone: 0570-066-877 (Navi Dial)

Office hours: 9:00-18:00, except on Saturdays, Sundays, National Holidays and the New Year Holidays (from December 29 until January 3)

URL: <https://www.e-rad.go.jp/shozoku/system/index.html>

(Time period when e-Rad is available for use)

(Monday to Sunday) 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 and Co-investigators applying for KAKENHI in FY2021 belong to” and “those research institutions which Principal Investigators and Co-Investigators continuing research projects using KAKENHI are scheduled to belong to in FY2021” **must submit in accordance with the procedure and forms posted on the MEXT website (URL: http://www.mext.go.jp/a_menu/jinzai/fusei/1415332_00001.htm) the “Checklist on the Research Misconduct” to the Office for Research Integrity Promotion, Human Resources Policy Division, Science and Technology Policy Bureau of the MEXT via e-Rad. If the “Checklist on the Research Misconduct” was not submitted on or after April 2020, it should be submitted by May 10, 2021 (Monday).** If the “Checklist on the Research Misconduct” has already been submitted in April 2020 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 FY2020, if they submit one on or after April 1, 2021, they should submit a “Checklist pertaining to the Current Status” for FY2021.

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

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

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

< Inquiries >

(Concerning the format and submission of Guidelines for Responding to Research Misconduct)

* Differs from the contact information for the Guidelines on Public Research Fund.

Office for Research Integrity Promotion, Human Resources Policy Division,

Science and Technology Policy Bureau, MEXT

e-mail: kiban@mext.go.jp

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

(Concerning the research institute e-Rad registration)

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

Telephone: 0570-066-877 (Navi Dial)

Office hours: 9:00-18:00, except on Saturdays, Sundays, National Holidays and the New Year Holidays (from December 29 until January 3)

URL: <https://www.e-rad.go.jp/organ/entry.html>

(Time period when e-Rad is available for use)

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

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.

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

Principal Investigators taking part in a new research project have to complete followings before the formal application for grant delivery.

- 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 the researcher 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.

Moreover, the Application Procedures are available on the section Grants-in-Aid for Scientific Research of the JSPS website.

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

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

It should be verified whether the Principal Investigator listed in the Research Proposal Document are researchers who meet the requirements that are stipulated in the Application Procedures (see page 18-22), and also whether the researcher information is registered in e-Rad as “Eligible to Apply for KAKENHI”.

Moreover, it should be verified certainly that they must not be categorized as ineligible for grant acquisition in FY2021 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.

(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 “III. 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 numbers 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 numbers of pages instructed for each column are different are in conformity with prescribed format.

Unit: page(s)

	Number of page(s) of each column				Total Number of Pages
	“Research Objectives, Research Method, etc.” Column	“Research Development Leading to Conception of the Present Research Proposal, etc.” Column	“Applicant’s Ability to Conduct the Research and the Research Environment” Column	“Issues Relevant to Human Right Protection and Legal Compliance” Column	
Correct Number of Pages	2	1	2	1	6
Incorrect Number of Case 1	1	1	2	1	5
Incorrect Number of Case 2	1	2	2	1	6

The format and other matters of the application forms are as follows.

Research category Application Section	Research Proposal Document		
	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 (Research expenses, status of application and acquisition of research grants, etc.)

* Even if you have not yet obtained an ID and password for the e-Red system, you may obtain the forms to be uploaded from the Grants-in-Aid page of the JSPS website.

(URL: https://www.jsp.go.jp/j-grantsinaid/22_startup_support/download.html)

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. (Completed to submit (send) the Research Proposal Document (PDF files) to JSPS.) Moreover, it is not possible to make corrections or other modifications to the Research Proposal Document (PDF files) for which the research institution has already performed the “approval” process.

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

May 10, 2021 (Monday), 4:30 pm (This deadline should be strictly observed.)

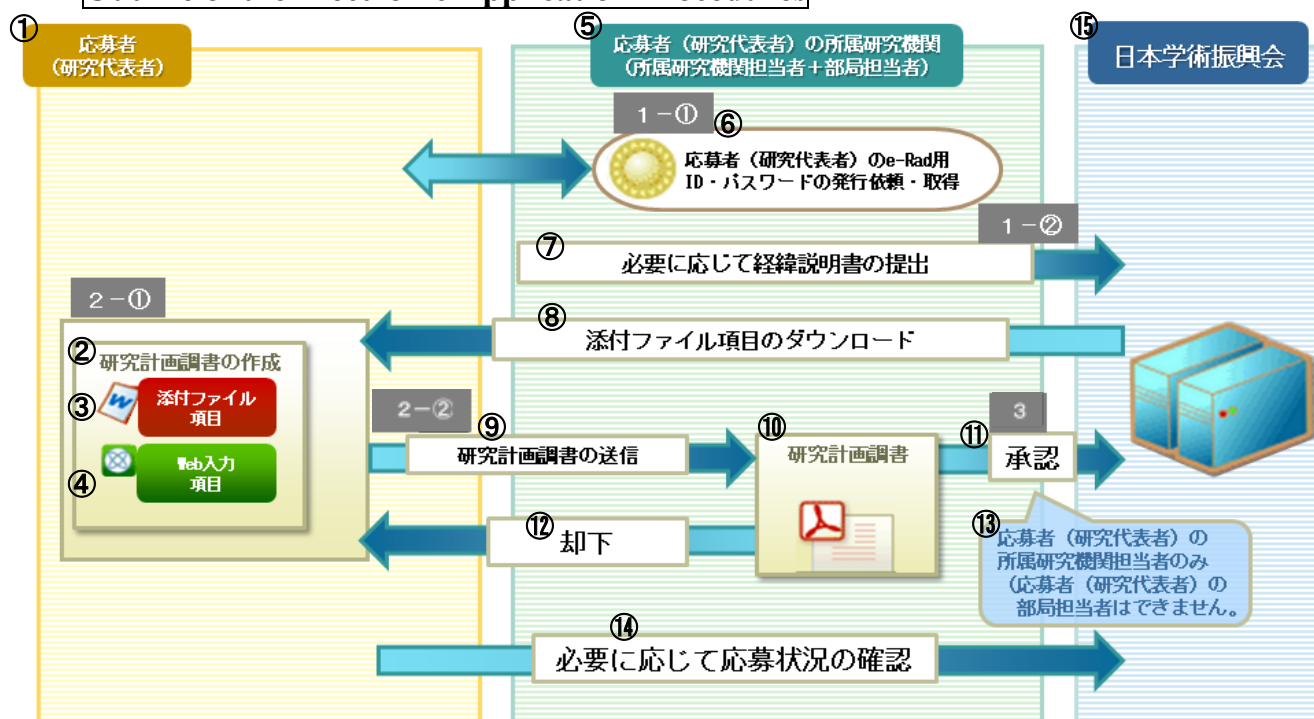
Note 1: Research Proposal Document that is submitted (sent) after this deadline will not be accepted for any reason. Therefore, the documents should be submitted (sent) well in advance.

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

- (3) 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: https://www.shinsei.jsp.go.jp/kaken/topkakenhi/shinsei_ka.html

Outline of the Electronic Application Procedures



- 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
- ⑩ Research Proposal Document
- ⑪ Approval
- ⑫ Rejection
- ⑬ 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.)
- ⑭ Confirmation of the state of the application as necessary
- ⑮ JSPS

[The administrative staff in the research institution to which the applicant (Principal Investigator) belongs]

- 1 - ① The administrative staff in the research institution to which the applicant belongs issues the ID and the password to the applicant.
- 1 - ② When needed, the applicant's Background Description (see page 41) can be prepared and submitted using the electronic application system.

[The applicant (Principal Investigator)]

- 2 - ① The applicant accesses the "Electronic Application System", using the ID and the password he or she received, and prepares 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.
- 2 - ② If there are no mistakes in the Research Proposal Document (PDF file) the applicant prepared, he or she should submit the Research Proposal Document (PDF file) to the administrative staff in the research institution to which he or she belongs, by performing the "completed and submission" process.

[The administrative staff in the research institution to which the applicant (Principal Investigator) belongs]

- 3 By approving the Research Proposal Document (PDF file) the administrative staff in the research institution to which the applicant belongs submits (sends) it to JSPS.
Moreover, if the Research Proposal Document (PDF file) that the applicant submitted is not approved due to mistakes or other reasons, it will be rejected and the applicant will be requested to make corrections.

VI. Other Relevant Issues

1.Support through Grant-in-Aid for Scientific Research on Innovative Areas – Platforms for Advanced Technologies and Research Resources

In order to respond effectively to the diverse needs of researchers of KAKENHI research projects, the Grant-in-Aid for Scientific Research on Innovative Areas - 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 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 of research 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 equipment and technical support to researchers in a wide variety of research areas.

“Research Platform Resource Support Program” collects, conserves, and supplies the resources that are 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 Technology Support Platform Program	Platform of Advanced Bioimaging Support (*)	National Institute for Physiological Sciences National Institute for Basic Biology	Advanced technical support and user training for : <ul style="list-style-type: none"> · Light microscopy · Electron microscopy · Magnetic resonance imaging · Imaging analysis
	Platform of Advanced Animal Model Support(*)	The Institute of Medical Science The University of Tokyo	Support for constructing animal models, Support for pathological analysis, Support for physiological analysis, and Support for molecular profiling
	Platform for Advanced Genome Science (*)	National Institute of Genetics	Advanced genome analysis (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 Resource Support Program	Platform for Integration and Sophistication of Image Information on Area Studies	National Museum of Ethnology	Digital Picture Library for Area Studies
	Supply Platform of Short-lived Radioisotopes for Fundamental Research	Research Center for Nuclear Physics, Osaka University	Supply short-lived radioisotopes produced by accelerators for fundamental research in various scientific fields.
	Platform of Supporting Cohort Study and Biospecimen Analysis (*)	The Institute of Medical Science The University of Tokyo	Support for cohort study using bioresources, Support for maintaining and utilizing human brain resources, and Support using biospecimen

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 : http://www.mext.go.jp/a_menu/shinkou/hojyo/1367903.htm

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, in “On the Management of Research Organizations and the Introduction of a New, Unified System for the Shared Use of Research Equipment” (November, 2015, Science and Technology Council Advanced Research Foundation Subcommittee), the establishment and operation of a “research equipment sharing system on the research organization level” (hereinafter referred to as “equipment sharing system”) is demanded of universities and national research and development agencies, etc.

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.

○“Management of Research Organizations and the Introduction of a New, Unified System for the Shared Use of Research Equipment”

(November 25, 2015,Advanced Research Foundation Division, Science and Technology Council)

URL: http://www.mext.go.jp/b_menu/shingi/gijyutu/gijyutu17/houkoku/1366220.htm

○ “Reform of Competitive Research Funds: Towards a Sustained Output of Research Achievements (Interim Report)”

(June 24, 2015 Competitive Research Fund Reform Review meeting)

URL: http://www.mext.go.jp/b_menu/shingi/chousa/shinkou/039/gaiyou/1359306.htm

○Unification of Spending rules for Competitive Research Funds

(Revised version of the March 31, 2015 Agreement of the Liaison Meeting of Related Offices and Ministries Competitive Research Funds: Revised on April 20, 2017)

URL: http://www8.cao.go.jp/cstp/compefund/shishin3_siyouruuru.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 the research progress assessment of Specially Promoted Research, for which researchers receive a relatively high amount of research funds, and in interim assessment of Scientific Research on Innovative Areas (Research in a Proposed Research Area). 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: <https://biosciencedbc.jp/>) 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.biosciencedbc.jp/guidelines/>

< Inquiries >

National Bioscience Database Center, Japan Science and Technology Agency

Telephone: 03-5214-8491

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: <http://www.nibb.ac.jp/ibbp/>) 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.

< Inquiries >

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

Telephone: 0564-59-5930, 5931

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: <http://www.nbrp.jp/center/center.jsp>

< Inquiries >

Division of Biobank, Department of Research Infrastructure, National Research and Development Agency Japan Agency for Medical Research and Development

Telephone: 03-6870-2228

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

In Japan, export controls (*) 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.

- (*) 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).

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.

For this reason, 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.

Details of the security trade control are published on the websites including the Ministry of Economy, Trade and Industry website.

- Ministry of Economy, Trade and Industry: Security Trade Control (General)
URL: <http://www.meti.go.jp/policy/ampo/>
- Ministry of Economy, Trade and Industry: “Handbook on Security Trade Control”
URL: <https://www.meti.go.jp/policy/ampo/seminer/shiryu/handbook.pdf>
- Center for Information on Security Trade Controls
URL: <http://www.cistec.or.jp/index.html>
- “Guidance for the Control of Sensitive Technologies for Security Export for Academic and Research Institutions 3rd Edition”
URL:
https://www.meti.go.jp/policy/ampo/law_document/tutatu/t07sonota/t07sonota_jishukanri03.pdf

8. Treatment Improvement for Students in Doctoral Course

In the 5th Science and Technology Basic Plan, the numerical target was set that approximately 20 percent of the doctoral students can receive the amount of subsidy roughly equivalent to their living cost. This policy is to substantiate the financial support to doctoral students in particular in order to attract talents from home and abroad. Research institutions are urged to enlarge job opportunities as RA etc. and treatment improvement for the doctoral students. The “Comprehensive Package for Enhancing Research Capacity and Supporting Young Researchers” (January 23, 2020, Decision of Council for Science, Technology and Innovation) state a goal that in the future every doctoral student, if he/she wishes, can receive an amount of subsidy roughly equivalent to his/her living cost, and set a specific measure to promote ensuring appropriate wage level for an RA employed with

competitive or collaborative research funds.

Based on the above, when employs a doctoral student as RA for the KAKENHI project, the hourly wage standard has to be set according to the nature and content of his/her job based on the standard set by the PI's (or Co-I's) research institution and pay the wage according to the actual work hours under the proper labor management.

Furthermore, when employs a doctoral student PI (or Co-I) should pay due consideration not to overload the student with excessive work hours and to keep the balance with the time for student's own research and learning.

Attached Table 1

Grants-in-Aid for Scientific Research-KAKENHI-“Research Activity Start-up FY2021” 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 FY2021”
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.

Examples of related research content	Review Section corresponding 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 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
	Philosophy and ethics-related
	Philosophy in general, Ethics in general, Western philosophy, Western ethics, Japanese philosophy, Japanese ethics, Applied ethics, etc.
	Chinese philosophy, Indian philosophy and Buddhist philosophy-related
	Chinese philosophy/thought, Indian philosophy/thought, Buddhist philosophy, Bibliography, Philology, etc.
	Religious studies-related
	History of religions, Philosophy of religion, Theology, Sociology of religion, Psychology of religion, Anthropology of religion, Studies of religious folklore, Mythology, Bibliography, Philology, etc.
	History of thought-related
	History of thought in general, History of Western thought, History of Eastern thought, History of Japanese thought, etc.
	Aesthetics and art studies-related
	Philosophy of art, Aesthetics, Miscellaneous art studies, etc.
	History of arts-related
	Japanese art, Eastern art, Western art, Contemporary art, Craft, Design, Architecture, Costume, Photography, etc.
	Theory of art practice-related
	Art expression, Arts management, Art policy, Art production, etc.
	Sociology of science, history of science and technology-related
	Sociology of science, History of science, History of technology, History of medicine, Industrial archeology, Philosophy of science, Foundation of science, STS (Science, technology and society), etc.
	Design-related
	Information design, Environmental design, Industrial design, Spatial design, Design history, Theory of design, Design standard, Design support, Evaluation of design, Design education, etc.

0102 : Literature, linguistics, and related fields

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, Literary theory, etc.
Chinese literature-related
Chinese literature, Bibliography, Philology, Literary theory, etc.
English literature and literature in the English language-related
English literature, American literature, Literature in the English language, Literary theory, Bibliography, Philology, etc.
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.
Literature in general-related
Literature in other languages and areas, Literary theory, Comparative literature, Bibliography, Philology, Literature education, etc.
Linguistics-related
Phonetics/phonology, Semantics/pragmatics, Morphosyntax, Sociolinguistics, Contrastive linguistics, Psycholinguistics, Neurolinguistics, Historical linguistics, Corpus linguistics, Endangered and minority languages, etc.
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, Diversity of the English language, Corpus linguistics, History of the English language, History of English linguistics, etc.
Japanese language education-related
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, Cross-cultural understanding, etc.
Foreign language education-related
Learning method, Computer-assisted language learning (CALL), Teaching material, Language testing, 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, Information media, Bibliometrics, Information resources, Information ethics, Digital humanities, Social Informatics, Digital archives, etc.

0103 : History, archaeology, museology, and related fields

Examples of related research content
Historical studies in general-related
Historical theory, Historical methodology, Research in historical materials, Memory and medium, World history, History of cultural and diplomatic exchange, Comparative history, etc.

Japanese history-related
Japanese history in general, History of ancient Japan, History of medieval Japan, History of early modern Japan, History of modern Japan, History of local Japan, History of Japanese culture, History of Japanese religion, History of Japanese environment, History of Japanese city, History of cultural and diplomatic exchange, Comparative history, Research in historical materials, etc.
History of Asia and Africa-related
History of pre-modern China, History of modern China, 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, Comparative history, 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, Asian archaeology, Ancient civilizations, History of material culture, Experimental archaeology, Information archaeology, Study of buried cultural property, etc.
Cultural assets study-related
Dating methods, Material analysis, Production techniques, Conservation science, Archaeological prospection, Plant and animal residues, Human remains, Cultural heritage, Cultural resources, Cultural property policy, etc.
Museology-related
Exhibition studies, Museum pedagogy, Museum informatics, Museum business management, Public finance and administration of museums, Museum material resources, History of museology, etc.

0104 : Geography, 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, International cooperation, Interregional exchange, Environment, Transnationalism, Globalization, Social development, 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, Sexuality, Queer studies, Labor, Violence, Prostitution, Reproductive technology, Gender equality, etc.

0105 : Law and related fields	
	Examples of related research content
	Legal theory and history-related
	Legal philosophy, Roman law, Legal history, Sociology of law, Comparative law, Foreign law, Law and policy, Law and economics, Judicial system, etc.
	Public law-related
	Constitutional law, Administrative law, Tax law, etc.
	International law-related
	Public international law, Private international law, International human rights law, International economic law, EU law, etc.
	Social law-related
	Labor law, Economic law, Social security law, Education law, etc.
	Criminal law-related
	Criminal law, Criminal procedure, Criminology, Criminal justice policy, Juvenile law, Law and psychology, etc.
	Civil law-related
	Civil law, Commercial law, Civil procedure, Insolvency law, Alternative dispute resolution, etc.
	New fields of law-related
	Environmental law, Medical law, Information law, Consumer law, Intellectual property law, Law and gender, Legal profession, etc.
0106 : Political science and related fields	
	Examples of related research content
	Politics-related
	Political theory, History of political thought, Political history, Japanese political history, Japanese politics, Political process, Electoral studies, Political economy, Public administration, Local government, Comparative politics, Public policy, etc.
	International relations-related
	Theory of international relations, Modern international relations, Diplomatic history, International history, Foreign policy, International security, International political economy, Global governance, International cooperation, etc.
	Area studies-related
	Area studies in general, Cross-regional comparative studies, Aid, International cooperation, Interregional exchange, Environment, Transnationalism, Globalization, Social development, etc.
	Gender studies-related
	Gender studies in general, Feminism, Sexuality, Queer studies, Labor, Violence, Prostitution, Reproductive technology, Gender equality, etc.
0107 : Economics, business administration, and related fields	
	Examples of related research content
	Economic theory-related
	Microeconomics, Macroeconomics, Game theory, Behavioral economics, Experimental economics, Economic theory, Evolutionary economics, Economic institutions, Economic systems, etc.
	Economic doctrines and economic thought-related
	Economic doctrines, Economic thought, Social thought, Economic philosophy, etc.

Economic statistics-related
Statistical system, Statistical research, Population statistics, Income/wealth distribution, National accounts, Econometrics, Financial econometrics, etc.
Economic policy-related
International economics, Industrial organization, Economic development, Urban economics, Regional economy, Environmental and resource economics, Japanese economy, Economic policy, Transportation economics, Development economics, International development, etc.
Public economics and labor economics-related
Public finance, Public economics, Health economics, Labor economics, Social security, Education economics, Law and economics, Political economy, 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
Corporation theory, Organization theory, Organizational behavior, Corporate strategy, Business management, Human resource management, Management of technology, International business, Management information, Industrial management, Management 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, Tourism resources, Tourism policy, Tourism industry, Regional development, Tourists, Pilgrimage, etc.

0108 : Sociology and related fields

Examples of related research content
Sociology-related
Sociology in general, Community, Family, Labor, Sociology of welfare, Gender, Media, Ethnicity, Social movements, Social research, Sociology of medicine, Social demography, 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
Culture and living, Home economics, Consumer affairs, Lifestyle, Culture of clothing, Culture of food, Culture of dwelling, Dress and fashion, Diet habits, Housing, Family and consumer sciences in general, Family and consumer education, 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, Sexuality, Queer studies, Labor, Violence, Prostitution, Reproductive technology, Gender equality, etc.

0109 : Education and related fields

Examples of related research content
Education-related
History of education, Philosophy of education, Curriculum and pedagogy, Evaluation of education, Teacher and trainer, School education, Social and community education, Vocational education and training, Lifelong learning, Institutions and administration, etc.
Sociology of education-related
Sociology of education, Socialization, Educational organization and system, Destination and career formation, Class disparities, Gender, Education policy, Comparative education, Globalization and development, etc.
Childhood and nursery/pre-school education-related
Childhood, Nursery/pre-school education, Right of child, Development, Contents and methods of child care, Childcare facilities and kindergarten, 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, Education excluding subjects, Student guidance and counselling, Career education, School management, Teacher education, ESD, Environmental education, Literacy, etc.
Tertiary education-related
Policy, Admission and articulation, Curriculum, Career guidance, Teacher and staff, Scientific research, 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, Physical disabilities, Career education, etc.
Educational technology-related
Curriculum development, Teaching-learning support systems, Utilization of media, Utilization of ICT, Teacher's education, Information literacy, etc.
Science education-related
Science education, Science communication, Scientific literacy, Science and society, etc.
Japanese language education-related
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, Cross-cultural understanding, etc.
Foreign language education-related
Learning method, Computer-assisted language learning (CALL), Teaching material, Language testing, 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.

0110 : Psychology and related fields

Examples of related research content
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, 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 photonics, 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 and safety design, Thermal-hydraulics and structure, Fuel material, Nuclear chemistry, Nuclear life cycle, Radiation safety, Radiation beam engineering, Plasma engineering for fusion reactor, Equipment and material engineering for fusion reactor, Nuclear social environment, etc.
Earth resource engineering, Energy sciences-related
Earth resource sciences, Resource prospecting, Resource development, Resource cycle, Resource economy, Energy system, Environmental load evaluation, Renewable energy, Natural resource and energy technological 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
Optical/infrared astronomy, Radio astronomy, Solar physics, Astrometry, Theoretical astronomy, X-ray/ γ -ray 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

Machine tools, Machining, Non-traditional machining, Ultraprecision machining, Additive manufacturing, Precision metrology, Manufacturing systems, Computer-aided technology, Process planning, etc.

Design engineering-related

Product design, Service design, Design for reliability, Maintainability design, Lifecycle engineering, Reverse engineering, Safety design, Design engineering, 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, Learning control, Mechatronics, Micro/nano mechatronics, Biomechanics, 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 strength, Propulsion, Aerospace craft design, Production engineering, Aircraft system, Specific aircraft, Aerodynamics, Spacecraft system, Space utilization, etc.

Marine engineering-related

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

Communication and network engineering-related

Information theory, Nonlinear theory, Signal processing, Wired/wireless 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 devices, 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, Quantum structures, 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, Micro fabrication 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, Underground space, 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, Soil structure, Geo-disaster prevention, Geoenvironmental engineering, Tunnel engineering, Soil environment, 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, 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.

0304 : Architecture, building engineering, and related fields

Examples of related research content
Building structures and materials-related
Load theory, Structural analysis, Structural design, Structures, Earthquake resistant design, Foundation, Geotechnics, Structural material, Maintenance, Building construction method, etc.
Architectural environment and building equipment-related
Sound environment, Vibration environment, Light environment, Heat environment, Air environment, Environmental psychology/physiology, Building equipment, Fire engineering, Urban environment, Environment design, etc.
Architectural planning and city planning-related
Planning theory, Design theory, Housing theory, Buildings, Urban/regional planning, Administration, Building economics, Production management, Disaster prevention planning, Landscape, etc.
Architectural history and design-related
Architectural history, Urban history, Architectural theory, Design, Landscape, Preservation, Renovation, etc.
Design-related
Information design, Environmental design, Industrial design, Spatial design, Design history, Theory of design, Design standard, Design support, Evaluation of design, Design education, etc.

0401 : Materials engineering, chemical engineering, and related fields

Examples of related research content
Metallic material properties-related
Electric and magnetic properties, Electronic information properties, Metastable states, Diffusion, Phase transformation, Phase diagram, Crystal lattice defects, Mechanical properties, Thermal and optical properties, Materials computational science, etc.
Inorganic materials and properties-related
Functional ceramics, Functional glasses, Structural ceramics, Carbon-based materials, Crystal structure analysis, Microstructure control, Electric properties, Mechanical properties, Physical and chemical properties, Grain boundary, etc.
Composite materials and interfaces-related
Functional composite materials, Structural composite materials, Biocompatible composite materials, Polymer composite, Surface treatment, Dispersion control, Joining and welding, Adhesive bonding, Interface properties, Gradient function, etc.
Structural materials and functional materials-related
Social infrastructure materials, Toughness, Medical welfare materials, Functional polymer materials, Reliability, Photo-functional materials, Sensor materials, Energy materials, Battery functional materials, Environment functional materials, etc.
Material processing and microstructure control-related
Processing and molding, Thermal treatment, Crystal microstructure control, Laser processing, Precision processing, Polishing, Powder metallurgy, Coatings, Metal plating, Corrosion and protection,
Metals production and resources production-related
Separation and purification, Melting and solidifying, Crystal growth, Casting, Resource security reservation, Scarce resources substitution, Low environment impact, Recycle, Ecomaterials, Energy saving, etc.
Transport phenomena and unit operations-related
Phase equilibrium, Transport properties, Momentum/heat/mass transfer, Fluid-phase unit operation, Adsorption, Membrane separation, Mixing, Powder technology, Crystallization, Film formation, etc.
Chemical reaction and process system engineering-related
Reaction operation, Novel reaction process, Reaction mechanism, Reactor design, Materials synthesis process, Micro-chemical process, Process control, Process system design, Process informatics, etc.

Catalyst and resource chemical process-related
Catalysis, Catalyst preparation, Catalytic function, Energy conversion process, Energy development, Energy-saving technology, Resources effective utilization technology, etc.
Biofunction and bioprocess engineering-related
Biocatalyst engineering, Biofunction engineering, Food engineering, Medicochemical engineering, Bioproduction process, Nano-bioprocess, 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
Nanostructure creation, Clusters, Nanoparticles, Mesoscopic chemistry, Superstructures, Nanometer-scale surfaces and interfaces, Self-assembly, Nanocarbons, Molecular devices, Nanometer-scale optical devices, etc.
Nanostructural physics-related
Physics in nanoscale materials and structures, Nanoprobes, Quantum effects, Quantum dots, Quantum devices, Electron devices, Spin devices, Nanotribology, Nanocarbon physics, etc.
Nanomaterials-related
Creation of nanomaterials, Analysis of nanomaterials, Nanosurfaces, Nanointerfaces, Functional nanomaterials, Nanostructures, Nanoparticles, Carbon nanomaterials, Nanocrystalline materials, Nanocomposites, Nanodefected, 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-optical devices, Nano/micro-chemical systems, Nano/micro-biosystems, Nano/micro-organism systems, Nano/micro-mechanics, Nano/micro-sensors, etc.
Applied physical properties-related
Magnetic materials, Superconductors, Dielectrics, Fine particles, Organic molecules, Liquid crystals, New functional materials, Organic molecules and bioelectronics, Spintronics, etc.
Thin film/surface and interfacial physical properties-related
Thin-film engineering, Thin-film electronics, Oxide electronics, Vacuum, Surface science, Analysis, Measurement, Nanoscopic technology, Surface and interfacial engineering, Advanced equipment, etc.
Applied condensed matter physics-related
Elementary quantities, Standards, Units, Physical quantity measurements and detection, Energy conversion, etc.
Crystal engineering-related
Metals, Semiconductors, Ceramics, Amorphous materials, Crystal growth, Artificial structures, Crystal characterization, Plasma materials engineering, Plasma processing, Plasma engineering, 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, Vision 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
Theoretical chemistry, Molecular spectroscopy, Structural chemistry, Electronic state dynamics, Chemical reaction dynamics, Surface/interface, Cluster and nano materials, Bio-related physical chemistry, Liquid structure dynamics, Solid state properties, Molecular properties, etc.
Functional solid state chemistry-related
Optical properties, Electron spin, Molecular electronics and devices, Supermolecules, Liquid crystals, Crystals, Surface/interface, Nano particles, Colloids, Electrochemistry, Electronic properties, etc.
Structural organic chemistry and physical organic chemistry-related
Organic crystals, Molecular recognition, Supermolecules, Organic functional materials, Extended p-electron system compounds, Heterocyclic chemistry, Organoelement chemistry, Organic reaction mechanism, Organic photochemistry, Theoretical organic chemistry, etc.
Synthetic organic chemistry-related
Selective reactions, Asymmetric synthesis, Organometallic complex/catalysis, Catalyst design, Organocatalysts, Biocatalysis, Sustainable organic synthesis, Natural product synthesis, Process chemistry, Organic electrochemistry, etc.
Polymer chemistry-related
Polymer synthesis, Polymer reactions, Precision polymerization, Functional polymers, Self-assembled polymers, Chiral polymers, Bio-related polymers, Polymer properties, Polymer structures, Polymer thin film/surface, etc.
Polymer materials-related
Properties of polymer materials, Synthesis of polymer materials, Functional polymer materials, Liquid crystal polymers, Textiles, Rubbers, 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,
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.

0602 : 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 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, Conservation of genetic resources, Ecosystem conservation, Conservation of endemic species, Conservation of microorganisms, 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.
0603 : 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 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 ecosystem, 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.

0604 : Agricultural economics and rural sociology, agricultural engineering, and related fields	
	Examples of related research content
	<u>Agricultural and food economics-related</u>
	Food economy, Agricultural production economy, Policy for agriculture, forestry and fishery, Food system, Food marketing, International agricultural development, Trade of agricultural commodities and livestock products, Rural resources and environment, etc.
	<u>Rural sociology and agricultural structure-related</u>
	Farm organization, Farm management, Agricultural structure, Agricultural market, Agricultural history, Rural society, Rural life, Agricultural cooperative, etc.
	<u>Rural environmental engineering and planning-related</u>
	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.
	<u>Agricultural environmental engineering and agricultural information engineering-related</u>
	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.
	<u>Environmental agriculture-related</u>
	Biomass, Environmental manipulation, Biodiversity, Environmental analysis, Ecosystem services, Resources circulation system, Low-carbon societies, Life-cycle assessment, Environmental friendly agriculture, Watershed management, etc.
0605 : Veterinary medical science, animal science, and related fields	
	Examples of related research content
	<u>Animal production science-related</u>
	Breeding/genetics, Reproduction, Nutrition/feeding, Anatomy/physiology, Product, Environment, Behavior, Therapy, Grassland, Grazing, etc.
	<u>Veterinary medical science-related</u>
	Basic veterinary science, Pathological veterinary science, Applied veterinary science, Clinical veterinary science, Animal nursing, Animal welfare, Wildlife, etc.
	<u>Animal life science-related</u>
	Homeostasis, Cellular function, Biological defense, Integrated genetics, Development/differentiation, Biotechnology, etc.
	<u>Laboratory animal science-related</u>
	Genetic engineering, Developmental engineering, Animal models of disease, Facility management, Laboratory animal welfare, Laboratory animal-related technology, Bioresource, etc.
0701 : Biology at molecular to cellular levels, and related fields	
	Examples of related research content
	<u>Molecular biology-related</u>
	Chromosome function, Chromatin, Epigenetics, Genome maintenance, Genome transmission, Chromosome re-organization, Gene expression, Non-coding RNA, Regulation of protein function, Molecular genetics, etc.
	<u>Structural biochemistry-related</u>
	Proteins, Nucleic acids, Lipids, Carbohydrates, Biological membrane, Molecular recognition, Denaturation, Three-dimensional structural analysis, Three-dimensional structural prediction, Molecular dynamics, etc.

Functional biochemistry-related
Enzymes, Sugar chain, Bioenergy conversion, Biological trace elements, Physiologically active substances, Cell signaling, Membrane transport, Proteolysis, Molecular recognition, 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 : Biology at cellular to organismal levels, and related fields

Examples of related research content
Cell biology-related
Cytoskeleton, Proteolysis, Organelle dynamics, 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, Regulation of gene expression, 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
Animal and plant morphology, Micro-organismal morphology, Molecular morphology, Microstructure, Tissue organization, Morphogenesis, Comparative endocrinology, Microscopic technology, Imaging, etc.
Animal physiological chemistry, physiology and behavioral biology-related
Metabolic physiology, Neurophysiology, Neuroethology, Behavioral physiology, Animal physiological chemistry, Chronobiology, Comparative physiology, etc.

0703 : Biology at organismal to population levels and anthropology, and related fields

Examples of related research content
Genetics-related
Genetic mechanism, Molecular genetics, Cellular genetics, Population genetics, Evolutionary genetics, Developmental genetics, Behavioral genetics, Genetic diversity, etc.
Evolutionary biology-related
General evolutionary biology, Molecular evolution, Phenotypic evolution, Evolution of developmental traits, Evolution of ecological traits, Evolution of behaviors, Experimental evolution, Evolutionary theory, Evolution of symbiosis, Phylogenetics, Speciation, etc.
Biodiversity and systematics-related
Taxonomic characters, Taxon, Classification system, Biodiversity, Phylogenetics, Evolution, Natural history, Speciation, etc.
Ecology and environment-related
Chemical ecology, Molecular ecology, Physiological ecology, Evolutionary ecology, Behavioral ecology, Population ecology, Community ecology, Ecosystem, Conservation ecology, Natural environment, etc.

Physical anthropology-related
Molecular anthropology and genetics, Morphology and function, Bioarchaeology, Behavior and cognition, Ecology, Primates, Evolution, Development and ontogeny, Variation and diversity, etc.
Applied anthropology-related
Physiological anthropology, Ergonomics, Forensic anthropology, Medical anthropology, Physiological polymorphisms, Environmental adaptability, Somatic and physiological function, Anthropometry and bioengineering, 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.
0802 : 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.
0803 : Pathology, 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 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.
0901 : Oncology and related fields	
	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, etc.
	Tumor diagnostics and therapeutics-related Genome analysis, Diagnostic markers, Molecule imaging, Chemotherapy, Nucleic acid therapy, Gene therapy, Immunotherapy, Molecular targeted therapy, Physical therapy, Radiation therapy, etc.

0902 : General internal medicine and related fields	
	Examples of related research content
General internal medicine-related	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-related	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
Hematology and medical oncology-related	Hematological oncology, Hematological immunology, Anemia, Thrombosis and hemostasis, Chemotherapy, etc.
Connective tissue disease and allergy-related	Connective tissue disease, Allergy, Clinical immunology, Inflammation, etc.
Infectious disease medicine-related	Infection diagnostics, Infection therapeutics, Host defense, International infection science, etc.
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, 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, 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, Physiotherapeutics, Occupational therapy, Assistive technology, Speech and language therapy, etc.

Sports sciences-related
Sports physiology, Sports biochemistry, Sports medicine, Sports sociology, Sports management, Sports psychology, Sports education, Training science, Sports biomechanics, Adapted sports science, Doping, 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 denial-of-service 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.

1002 : Human informatics, applied informatics and related fields

Examples of related research content
Perceptual information processing-related
Pattern recognition, Image processing, Computer vision, Visual media processing, Acoustic media processing, Media editing, Media database, Sensing, Sensor fusion, etc.
Human interface and interaction-related
Human interface, Multi-modal interface, Human-computer interaction, Computer supported cooperative work, Virtual reality, Augmented reality, Realistic communication, Wearable device, Usability, Ergonomics, etc.
Intelligent informatics-related
Search, Inference, Machine learning, Knowledge acquisition, Intelligent system, Intelligent information processing, Natural language processing, Data mining, Ontology, Agent system, etc.
Soft computing-related
Neural network, Evolutionary computation, Fuzzy theory, Chaos, Complex systems, Probabilistic information processing, etc.
Intelligent robotics-related
Intelligent robot, Behavior and environment recognition, Planning, Sensory behavior system, Autonomous system, Digital human, Real world information processing, Physical agents, Intelligent space, etc.
Kansei informatics-related
Kansei design, Kansei cognitive science, Kansei psychology, Kansei robotics, Kansei measurement evaluation, Kansei interface, Kansei physiology, Kansei material science, Kansei pedagogy, Kansei brain science, etc.
Design-related
Information design, Environmental design, Industrial design, Spatial design, Design history, Theory of design, Design standard, Design support, Evaluation of design, Design education, etc.
Cognitive science-related
Cognitive science in general, Cognitive models, Kansei, Human factors, Cognitive and brain science, Comparative cognition, Cognitive linguistics, Cognitive engineering, etc.
Life, health and medical informatics-related
Bioinformatics, Life informatics, Biological information, Neuroinformatics, Neural information processing, Molecular computing, DNA computing, Medical information, Health information, Medical image, etc.
Web informatics and service informatics-related
Web system, Social web, Semantic web, Web mining, Social network analysis, Service engineering, Educational service, Medical service, Welfare service, Social service, Information culture, etc.
Learning support system-related
Media literacy, Learning media, Social media, Learning content, Learning management, Learning support, Remote learning, e-Learning, etc.
Entertainment and game informatics-related
Music information processing, 3D content, Animation, Game programming, Network entertainment, Media art,
Library and information science, humanistic and social informatics-related
Library science, Information services, Information organizing, Information retrieval, Information media, Bibliometrics, Information resources, Information ethics, Digital humanities, Social Informatics, Digital archives, etc.

1101 : Environmental analyses and evaluation, environmental conservation measure and related fields

Examples of related research content
Environmental dynamic analysis-related
Global warming, Environmental change, Water and material cycle, Polar regions, Chemical oceanography, Biological oceanography, Environmental measurements, Environmental model, Environmental information, Remote sensing, etc.
Radiation influence-related
Radiation, Measurement, Control, Repair, Biological effects, Risk, etc.
Chemical substance influence on environment-related
Toxicology, Toxic substance to human, Trace chemical substance, Endocrine disruptor, Repair, etc.
Environmental impact assessment-related
Atmosphere, Hydrosphere, Terrestrial impact, Impact assessment on human health, Social and economic impacts, Impact assessment on the future generation, Environmental impact assessment, Assessment methods, Monitoring, Simulation, etc.
Environmental load and risk assessment-related
Environmental analysis, Environmental load analysis, Environmental monitoring, Dynamics of environmental pollution, Environmental modelling, Evaluation of contamination, Exposure assessment, Toxicity evaluation, Environmental assessment, Chemical substance management, etc.
Environmental load reduction and remediation-related
Removal of contamination, Treatment of waste material, Control of contamination source, Disposal of waste material, Environmental load reduction, Remediation measure of contamination, Noise and vibration reduction, Countermeasure of ground settlement, Bioremediation, Radioactive decontamination, etc.
Environmental materials and recycle technology-related
Recycle materials, Valuable materials recovery, Separation, refining and purification, Environment-conscious design, Recycle chemistry, Green production, Zero emission, Resource circulation, Renewable energy, Biomass utilization, etc.
Social-ecological systems-related
Biodiversity, Conservation biology, Ecosystem services, Natural capital, Impact analysis on ecosystem, Ecosystem management, Ecosystem restoration, Ecological engineering, Regional environmental planning, Impact of climate change, etc.
Sound material-cycle social systems-related
Sound material-cycle systems, Material and energy budget analysis, Low carbon society, Unused energy, Regional revitalization, Water use system, Industrial symbiosis, Life cycle assessment (LCA), Integrated environmental management, 3R (reduction, reuse, recycle) social systems, etc.
Environmental policy and social systems-related
Environmental philosophy and ethics, Environmental laws, Environmental economics, Environmental information, Environmental education, Environmental social activities, Environmental management and governance, Consensus forming, Environmental safety and security, Social and public system, Sustainable development, etc.

(Reference 1) 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 Japan Society for the Promotion of Science (JSPS), and it is based on the Research Proposal Document.

The review of the “Grant-in-Aid for Research Activity Start-up” are performed by each Review Section. The four reviewers will conduct document reviews in two-stage. The panel reviews will not be conducted. (This is called a “Two-Stage Document Review”)

The review takes place behind closed doors. The submitted Research Proposal Document is not returned to the applicants.

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:

(URL : https://www.jsp.go.jp/j-grantsinaid/01_seido/03_shinsa/index.html).

3. Notification of the Review Results

- 1) JSPS will issue a notification in writing to the research institution on whether the research project has been adopted or not, based on the results of the review. (Planned in late August)
- 2) To Principal Investigators whose proposals have not been adopted and who wish to request for disclosure the results of the review at the first stage of the review, JSPS is ready to disclose the approximate ranking per the Review Section, the score (average score), and the “standard-format opinion” via the electronic application system. (Planned in late August)

(Reference 2)

Procedures on the Handling of Grants-in-Aid for Scientific Research

Omitted

(Reference 3)

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: 03-3263-0976, 0980, 1041

FAX: 03-3263-9005

(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)

The following phone numbers are also available.

Institutional Research and Information Division, Policy Planning Department, JSPS

Telephone: 03-3263-1017, 1022, 1107, 1024

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

e-Rad Help Desk

Telephone: 0570-066-877 (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 >

① How to operate e-Rad

Manuals on how to operate e-Rad can be referred or downloaded from the portal site (URL: <https://www.e-rad.go.jp>). 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)”

Office of Research Funding Administration, Promotion Policy Division, Research Promotion Bureau, Ministry of Education, Culture, Sports, Science and Technology (MEXT)

Telephone: 03-5253-4111 (ext. 3827, 3862)

(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, Human Resources Policy Division, Science and Technology Policy Bureau, MEXT

Telephone : 03-5253-4111 (ext. 3874, 3873, 4028)

(6) For matters related to “the National Bioscience Database”

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

(7) 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

(8) For matters related to the “National BioResource Project”

Department of Health and Clinical Data, Japan Medical Research and Development
Organization
Telephone: 03-6870-2228

(9) 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: <https://researchmap.jp/public/inquiry/>

(10) 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
FAX: 03-3501-0996

2. Application forms can be downloaded from the following website.

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

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

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