

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

Fund for the Promotion of Joint International Research (International Leading Research)

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 18, 2022

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- "Fund for the Promotion of Joint International Research (International Leading Research)" (hereinafter referred to as "International Leading Research").

The contents are:

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

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

The subsequent sections, "III Instructions for Prospective Applicants," and "IV Instructions for Administrative Staff of Research Institution" describe the conditions for application, required procedures, and other matters, to be followed by the respective parties. Relevant parties are requested to thoroughly check the related chapters.

While the grant program for this research category calls for proposals under the supplementary budget for FY2021, the indications, etc. on the Electronic Application System will read FY2022 to match the time of grant delivery.

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

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[References]

The application forms (Research Proposal Document) and other application materials are contained in separate files. Please refer to "Supplementary edition to the Application Procedures for Grants-in-Aid for Scientific Research-KAKENHI-, Fund for the Promotion of Joint International Research (International Leading Research) (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).

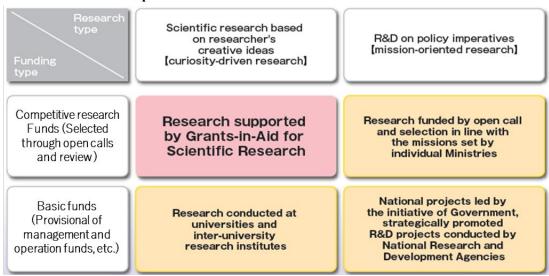
(URL) https://www.jsps.go.jp/english/e-grants/grants09 il.html

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

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

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

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



2. Research Categories

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

❖ As of March 2022

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) 	S	G
Grant-in-Aid for Scientific Research	(S): Creative/pioneering research conducted by one or a relatively small number of researchers. 5 years (in principle) 50 million to 200 million yen (A), (B), (C): Creative/pioneering research conducted by one researcher or jointly by multiple researchers.	(S) (A)	SG
	(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	(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	M	I IF
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		
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	1	
Grant-in-Aid for Special Purposes	Research projects of pressing urgency and importance.	M	1F
Grant-in-Aid for Publication Publication of Research Results	on of Scientific Research Results Subsidy for publication and/or international dissemination of research achievements of high academic values executed by academic associations and other organizations.		
Enhancement of International Dissemination of Information Scientific Literature	Subsidy for efforts by academic societies and other scholarly organizations to strengthen international dissemination of academic information for the purpose of international academic exchange. Subsidy for academic publication of research results (books) authored by an	S	G
Databases	individual or a group of researchers. 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 (CDP) the period is up to 5 years	S	G
Fund for the Promotion of .	Joint International Research	N	ſF

International Leading Research	This grant aims to enable research groups led by top-level researchers in our country to play a central role in the international network, thereby achieving research results of high scientific value internationally. With the participation of postdoctoral fellows and graduate students, the grant seeks to foster researchers who can play leading roles in the international research community in the future. (7 years (extendable up to 10 years); up to 500 million yen)	
Fostering Joint International Research	 (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

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 2022

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

^{*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.

4. Rules Pertaining to KAKENHI

International Leading Research is funded by KAKENHI (Multi-year Fund). Multi-year Funds are governed by laws and regulations including the "Act on Regulation of Execution of Budget Pertaining to Subsidies, etc." (Act no. 179 of 1955) with modifications, the "Basic Policy on the Management of the KAKENHI (Multi-year Fund) (Decision by the Minister of Education, Culture, Sports, Science and Technology)," and the "Procedures on the Handling of JSPS Grants-in-Aid for Scientific Research (KAKENHI (Multi-year Fund))" (Rule No. 19, 2011).

(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 2022

	Application Rules	Assessment Rules	Spending Rules
KAKENHI (Multi-year Fund)	JSPS Application Procedures	JSPS Rules concerning the review and assessment for Grants-in-Aid for Scientific Research	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) Important Note for the Use of KAKENHI (Multi-year Fund)

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

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

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

- i) 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.
- ii) 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 justifiable reason, then execution of other KAKENHI implemented in the same fiscal year will be suspended. Therefore, it is the responsibility of the representative of the research institution to ensure that the report on the research achievements is submitted without fail.

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

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

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

The "Guidelines on the Proper Implementation of Competitive Research Funds" (Agreement of the Liaison Meeting of Related Offices and Ministries on Competitive Research Funds, September 9, 2005; revised December 17, 2019) 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 research funds scheme follows the above-mentioned "Guidelines" and other related rules. Applicants are urged to take special notice of the following points.

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

- i) Towards elimination of "Unreasonable Duplication and/or Excessive Overconcentration" (*) of competitive research funds, relevant information on funding applications are shared among the pertinent ministries and funding agencies, making use of the Cross-ministerial Research and Development management system (e-Rad).
 - Therefore, applicants, when submitting more than one KAKENHI applications and/or other competitive research funds, are urged to prepare their application documents with due care to clearly state the differences between the project to be submitted and their other projects so as to make it clear that they do not constitute unreasonable duplication.
 - In case a particular KAKENHI application is recognized as constituting a case of unreasonable duplication and/or excessive overconcentration, that application may not be granted.
- ii) The following conducts may result in rejection of the research project, cancellation of grant, or reduction of the research budget: untruthful statement or misrepresentation in any of the entry of the status of applications and acquisitions of other competitive research funds (including those of other ministries) and other grants in the research proposal document (such as name of research grant, title of research project, research period, amount of budget, effort, affiliated institution/position upon application/acquisition of such grants, etc.); if it is found that the applicant has not appropriately shared with his/her affiliated research institution, the information necessary to ensure the transparency of all research activities that he/she is involved in, including information on research funds and side jobs, etc., as well as information

on donations and information on supports other than monetary funds, for example, through the provision of facilities and/or equipment.

- iii) Inquiries on the status of acceptance of facilities and/or equipment used for the research, the status of management of such facilities/equipment, and request for other information may be made to researchers, etc.
 - (*) Elimination of Unreasonable Duplication and Excessive Overconcentration in Grant Allocation

"Guidelines on the Proper Implementation of Competitive Research Funds" -Extract-(Agreement of the Liaison Meeting of Related Offices and Ministries on Competitive Research Funds, September 9, 2005; revised December 17, 2022)

- 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 where more than one competitive research fund and other research grants (all current research funds that are allocated to individual research contents, including both domestic and overseas grants-in-aid, subsidies, joint research funds, commissioned research funds, etc.; hereinafter the same) are unnecessarily and redundantly allocated to the same research project (meaning, the name and content of the research to which the competitive research funds are allocated; hereinafter the same) by the same researcher. Any of the following cases fall under "Unreasonable Duplication."
 - OCases where simultaneous applications have been made to more than one competitive research funds / other research funds for substantially the same research project, and where these research projects are redundantly adopted.
 - OCases where an application has been made again for substantively the same research project as another project that has already been adopted, and for which the allotment of competitive research funds / other research funds has already been completed.
 - OCases where there is duplication in the use of research funds among more than one research projects.
 - OOther 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."
 - OCases where, in the light of the abilities of the researcher, etc. and the research methods, etc., excessive research funds are allotted.
 - OCases 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.
 - OCases where the purchase of unnecessarily expensive equipment is carried out.
 - \bigcirc Other cases corresponding to the cases mentioned above.

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

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

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

- "Fraudulent Grant Acquisition":
 - Receiving competitive research funds by deception or other fraudulent means, for example, by applying under the name of another researcher, or by making false entries in application documents.
- "Research Misconduct":

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

(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 research funds other than the KAKENHI (including funds under the jurisdiction of other Offices and Ministries), etc., and/or has committed research misconduct by means of these competitive research funds, and therefore are excluded from receiving these funds in question for a certain period of time, will not receive the KAKENHI for the same period of time.

Note: This applies to those schemes newly starting a call for proposals in FY2022 (and onward) for "competitive research funds other than KAKENHI, etc. (including funds under the jurisdiction of other Offices and Ministries)" as well. It also applies to those schemes that ended before FY2021. Refer to the website below for the schemes to which this specifically applies at present.

URL: https://www8.cao.go.jp/cstp/compefund/kyoukin_r2-3.pdf

OPeriod 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		(i) Cases of major seriousness and maliciousness	5 years
	2. Other than 1.	(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 and used the funds as a result.	_		The upper limit is 2 years and the lower limit is 1 year depending on the degree of the breach of duty by the researchers who have the duty of care as a good manager.

For cases judged as subcritical to the punitive suspension measures, sharp reprimand is administered to the individual(s) concerned.

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

^{*} In cases where specific issues for extenuation such as voluntary withdrawal of the paper in question may be taken into account, the suspension period can be shortened as judged fit.

(ii) The relevant information of each improper grant spending, fraudulent grant acquisition and research misconduct case may be provided to the offices of the research funding agencies (including Incorporated Administrative Agencies) under the jurisdiction of the relevant Office. Thereby the penalized researcher may be also subject to restriction in application of and/or participation to research projects in other competitive research funds other than KAKENHI.

Note: "Application 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 on February 1, 2021), Ordered by the Minister of Education, Culture, Sports, Science and Technology" and the "Guidelines for Responding to Research Misconduct (adopted August 26, 2014 by MEXT)." Therefore, research institutions should pay adequate attention to these two sets of Guidelines when researchers implement their research activities.

In case where the status of the system improvement in line with these guidelines is recognized inadequate based on the survey results, the measures such as the reduction in indirect cost of

all kinds of competitive research funds disbursed by MEXT or the Incorporated 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"
<u>URL:https://www.mext.go.jp/a_menu/kansa/houkoku/1343904_21.htm</u>

O "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.

O Improper grant spending

- Someone instructed a trader to forge fictitious transaction pretending to have purchased expendables, made the university pay a KAKENHI for them, and then instructed the trader to keep the money as deposit for future use.
- Someone instructed a trader to forge a fictitious transaction, obtaining a false invoice which carries item names different from those actually ordered and delivered, and then made the university pay a KAKENHI for them.
- Someone instructed his/her students to submit false work attendance sheets, made the university pay a KAKENHI for them, and then kept the money as a pooled fund of his/her lab.
- Someone visited destination not listed on the oversea travel itinerary, in order to have a meeting on cooperative research unrelated to the purpose of the KAKENHI research project.
- (Note) The expenditure of the KAKENHI for fictitious and other transactions, like the ones mentioned in the case examples above, are all considered "misappropriation or misuse," even if the expenditure was intended for the purpose of conducting the KAKENHI research project.

O Fraudulent grant acquisition

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

O Research misconduct

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

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

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

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 $\stackrel{\star}{\approx}$ 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 the KAKENHI project, researchers must indicate that the project has been supported by the KAKENHI grant, by stating in the "Acknowledgment" or other designated section of the paper, the "JSPS KAKENHI Grant Number JP8 digits" in the case of English publication or "JSPS 科研費 JP8 桁の課題番号" in the case of Japanese publication.

⟨Example⟩

[English] This work was supported by JSPS KAKENHI Grant Number JP12K34567.

【Japanese】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(s') organization, JSPS nor MEXT.

【Japanese】本研究の成果は著者自らの見解等に基づくものであり、所属研究機関、資金

配分機関及び国の見解等を反映するものではありません。

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

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

OThe 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 online.

[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.

(iv) Management of Research Data

As to the management and utilization of research data obtained through the implementation of research activities, in order to secure the autonomy of Japan's research and development activities and promote international open science, policies such as the Sixth Science, Technology, and Innovation Basic Plan (Cabinet Decision on March 26, 2021), Basic Policies on the Management and Utilization of Research Data Created by Publicly-Funded Research Activities (April 27, 2021, Decision of Council for Integrated Innovation Strategy) and the Integrated Innovation Strategy 2020 (Cabinet Decision on July 17, 2020) call for initiatives towards strategic storage and management of research data as well as broader utilization of the research results.

Therefore, there is a plan in which, starting from the FY2024 KAKENHI call for proposals, upon formal application for grant delivery, the Principal Investigator of an adopted research project will be asked to submit a Data Management Plan ("DMP") outlining the storage and management, etc. of research results and research data of his/her research project.

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

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

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

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

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 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 and Co-Investigator(s) will have taken the research ethics education coursework, etc. (see page 44)

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

I. Responsibilities of Scientists

(Basic Responsibilities of Scientists)

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

(Attitude of Scientists)

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

(Scientists in Society)

3 Scientists shall recognize that scientific autonomy is upheld by public trust and the mandate of the people, understand the relationships between science, technology, society, and the natural environment from a wide-ranging perspective, and act in an appropriate manner.

(Research that Answers to Social Wishes)

4 Scientists shall recognize that they are responsible for answering to the wishes of society to investigate into truths and to achieve various issues. When using research funds that are to be provided for establishing the research environment and for conducting research scientists shall always recognize that such broad social expectations exist.

(Accountability and Disclosure)

5 Scientists shall strive to disclose and actively explain the roles and significance of their own research, evaluate the possible effects of their research on people, society and the environment as well as the changes that their research might engender, neutrally and objectively disclose the results of this evaluation, and build a constructive dialogue with society.

(Dual Use of Scientific Research Outcomes)

6 Scientists shall recognize that there exist possibilities that their research results, contrary to their own intentions, may be used for destructive actions, and shall select appropriate means and methods as allowed by society in conducting research and publicizing the results.

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

["For the Sound Development of Science – The Attitude of a Conscientious Scientist –" by 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 e.pdf

II. Call for Proposals

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

Fund for the Promotion of Joint International Research (International Leading Research): KAKENHI (Multi-year Fund)

A) Purpose:

This grant aims to enable researchers to achieve major developments in creative and pioneering research by providing KAKENHI (Multi-year Fund)'s flexible large-scale long-term support for outstanding international research. We expect to see research groups led by top-level researchers in our country to play a central role in the international network, thereby achieving research results of high scientific value internationally as well as furthering internationalization and advancing the level of research across such scientific fields.

Moreover, this research category will require the participation of postdoctoral fellows and graduate students. In doing so, the grant seeks to foster researchers who can play leading roles in the international research community, and to maintain and develop the environmental base for joint international research in the medium and long perspective.

Since this research category aims to support researchers who play a central role in joint international research and to help foster researchers, the funds will be granted to highly selected research projects. Proposals will be assessed, not only in terms of whether the research initiatives are significant as curiosity-driven research, but also in terms of their progressiveness, future potentials, and competitiveness, etc. as joint international research.

B) Funding target:

Research plans that satisfy both requirements (1) and (2) below will be eligible:

When formulating the research plan, please give due attention to the feasibility of the project in view of the situation, etc. of the countries or regions in which the affiliated institutions of overseas joint researchers are located.

(1) A research plan that is expected to produce outstanding research results by receiving focused grants; to be conducted as joint international research between "Japanese researchers who have records of excellent research achievements and international research networks," and researchers who belong to research institutions abroad and have internationally excellent research achievements ("Overseas Joint Researchers").

* The Principal Investigator must have achieved and published internationally outstanding research results to be eligible; for example, having co-authored an international joint paper (only

those published in and after 2016) as corresponding author, which was ranked in the top 10%

most highly cited papers. In some fields, "internationally outstanding research results" could

mean the following:

- Experience as a representative of a large international collaboration (e.g., a spokesperson who

plays a central role in the project and is responsible for the whole operation of the project)

- Author of prominent academic books that are published abroad and highly appraised within

the international research community (only those published in and after 2011)

(2) A research plan that is to be carried out by a research team consisting of multiple researchers

(Principal Investigator (PI) and Co-Investigators (Co-Is)), and a group of postdoctoral fellows

(PDs) and graduate students (doctoral course students, DCs) as Research Collaborators. The

number of PDs and DCs should be approximately three times that of the PI and Co-Is.

* In view of the aims of this research category to achieve research results of higher quality and to

contribute to fostering researchers who can play leading roles in the international research

community, it is mandatory to include the following initiatives in the research plan:

- Plans of dispatching PDs and DCs to overseas research institutions and of implementing

international exchanges with Overseas Joint Researchers (mainly for 2-3 years)

- Initiatives to support the self-reliance of PDs and DCs (e.g., financial support to enable PDs

and DCs to conduct research with a certain level of discretion and responsibility, subject to

the guidance of independent researchers)

* In this context, a postdoctoral fellow (PD) means in principle an early-career researcher who is

not engaged in full-time research activities, such as, an individual who is age 39 or under and has

not acquired his/her Ph.D. degree, or who has acquired his/her Ph.D. degree within the past 8

years (but excluding periods of maternity and/or childcare leave, etc.).

C) Range of total budget: Up to 500 million yen

D) Research period: 7 years

*The research period may be extended to maximum 10 years subject to the results of the interim

assessment.

E) Number of projects to be adopted: About 15 projects (highly selected)

*Since this research category aims to play a central role in joint international research and to help

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foster researchers, the funds will be granted to highly selected research projects. Proposals will be assessed, not only in terms of whether the research initiatives are significant as curiosity-driven research, but also in terms of their progressiveness, future potentials, and competitiveness, etc. as joint international research.

F) Review sections and review methods:

Review sections: Humanities and Social Sciences, Science and Engineering, or Biological Sciences

Review methods: Comprehensive review (Document review and panel review)

(See page 20 for details on the review methods)

G) Restrictions on parallel grant applications/receipts, etc.:

For details on parallel grant applications/receipts, see pages 29-30. The key items are outlined below:

- An applicant, whether as a Principal Investigator or Co-Investigator, may only propose one project under this research category. Therefore, the Principal Investigator must ensure that the Co-Investigators fully agree to participate in the research plan before organizing his/her project team.
- This research category is not subject to restrictions on parallel grant applications/receipts with other research categories.

H) Submission of a Letter of Intent from Overseas Researchers:

Upon submitting a proposal, overseas researchers participating as joint researchers (capable of assuming responsibility in the research plan) will be required to complete a Letter of Intent. The Principal Investigator must provide overseas researchers with detailed information on the research plan, including the content of the research and specific roles that will be assigned to each researcher, and obtain their expressed consent on their responsibilities depending on the assigned roles, for example, to secure their own research funds. Each overseas researcher must prepare a Letter of Intent in a prescribed format, setting forth the confirmations and understandings with the Principal Investigator. The Letters will be reviewed as part of the Research Proposal Document.

I) Background on the establishment of this research category and other notes:

The objectives and basic ideas of the establishment of this research category can be found in the document titled "Improving and Enhancing Support for Joint International Research" (Reference Material 1 for the meeting of Subdivision on Grants-in-Aid for Research, Science Division,

Council for Science and Technology, June 29, 2021). Read this document carefully in planning and preparing your research plan.

URL: https://www.mext.go.jp/content/20210706-gakjokik-000016622 01.pdf

<Notes>

- All participants, including research collaborators, in the project are encouraged to actively disseminate the research achievements globally through publication of coauthored international joint papers, and presentation in international conferences, etc.
- Funds will be allocated to the adopted research projects, taking into consideration to the maximum extent possible, the full amounts requested in the applications.
- This research category aims to foster excellent early-career researchers by way of supporting joint international research of top-class research teams. To this end, we plan to provide the following expenses in addition to the research grants set forth in section C above. Details will be notified separately to the PI of adopted research projects.
- Environmental expenses, to create a research environment that will enable young researchers to participate more easily in joint international research, will be paid to research groups to be supported under this research category. (Up to about 30 million yen per research project; to be allocated based on the situation, etc. of adoption.)
- Tenure start-up expenses, for Co-Is (PDs), Research Collaborators (PDs, DCs) hired by a research institution as researcher with tenure (including tenure-track position) during the research period of this research category. (3 million yen per researcher up to 21 million yen per research project: to be allocated based on the situation, etc. of employment.)
- For each adopted research project, an interim assessment will be conducted in the fifth year of the research period, and an ex-post assessment in the fiscal year following the completion of the project. The results of interim assessments are used to determine the extension of research periods as necessary, increase/decrease of the amounts of funding for the fiscal years after the assessment, and termination of the project, etc.
- To promote further internationalization of your affiliated research institutions, you are encouraged to actively contribute to your affiliated research institutions, by way of sharing your experiences or knowledge on international activities that you gain through the project to the extent that it does not hamper the implementation of the grant project.

Review Methods and Other Matters

The review for the KAKENHI is carried out by the Scientific Research Grant Committee of the JSPS, and is based on the Research Proposal Document. The review takes place behind closed doors. The submitted Research Proposal Document will not be returned to applicants.

Details on "assessment rules" such as assessment criteria for each research category ("Rules concerning the review and assessment for Grants-in-Aid for Scientific Research," hereinafter referred to as the "Review and Assessment Rules") can be found on the website for Grants-in-Aid for Scientific Research of the JSPS (URL: https://www.jsps.go.jp/english/e-grants/grants03.html). The Review and Assessment Rules for FY2022 will be posted on the JSPS website in April.

The review of this research category will be conducted through "Document Review" and "Panel Review" (collectively, "Comprehensive Review") by three separate committees of the specialized fields: humanities and social sciences; science and engineering; and biological sciences ("Section-specific Committees"). Details are as follows:

• The Document Review is conducted by eight to fourteen reviewers in principle in each Section-specific Committee. They will review each research proposal based on the Research Proposal Document, as well as review comments and the results of overseas reviews prepared by researchers in the close field of specialization (about three reviewers from domestic research institutions preparing the review comments and about three reviewers belonging to overseas research institution conducting overseas reviews).

*As a general rule, the Document Review will be conducted after a Preliminary Screening (examination of certain parts of the Research Proposal Document by the Section-specific Committees) and "Overseas Reviews" (conducted by researchers at overseas research institutions). Preliminary screening will not be held if the number of applications is limited.

• In the Panel Review, members of the Section-specific Committees will conduct discussions from a broad perspective on each research proposal and select research projects to be interviewed, then proceed with interview reviews.

*In the review process, reviewers can utilize, as necessary, the "researchmap" and the Grants-in-Aid for Scientific Research Database (KAKEN) (see page 45).

2. Schedule from Application to Grant Delivery

(1) Procedures that need to be completed prior to the deadline for the submission of the application documents

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

The Date and Time	Procedures to be Performed by the Principal Investigator (See "III. Instructions for Prospective	Procedures to be Performed by the Research Institution
Start of Call for Proposals: Friday, March 18, 2022		Procedures to be completed, if the need arises (1) The Research Institution obtains an ID and Password for e-Rad from the person in charge of the operation of e-Rad (This does not apply if the research institution already obtained them.) *The issue of the ID and the Password takes about 2 weeks. 2) Registration of the Researcher Information in e-Rad and other matters. 3) Research institutions issue an ID and password to the Principal Investigators. (This does not apply if the researcher already obtained an ID and a password.) 4) The researchers who belong to the Institutions give a consent to become the Co-Investigator. 5) Submission of the "Self-assessment Checklist on the Implementation of the System", based on the "Guidelines on the Management and Audit of Public Research Funds at Research Institutions". • Submission of the "Checklist Pertaining to the Current Status" based on "Guidelines for Responding to Misconduct in Research" *If both Checklists have been submitted separately after April 2021, there is no need for resubmission.
		Wednesday, May 18 (to be strictly observed)
Deadline for submission:		6) Submission (Sending) of the Application Documents
4:30 pm on Wednesday, May 18 (to be strictly observed)		

Notes:

1. After the Principal Investigator submits (Sending) the application to the research institution (mentioned in "Procedures to be Performed by the Principal Investigator" 3), the research institution should submit (Sending) to the JSPS the application by the deadline for the submission (mentioned in "Procedures to be Performed by the Research Institution" 6).

- Next, he or she should verify the section "Preparation of the KAKENHI Application Form" (pages 31-43), 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 office worker in charge in the research institution.
- 2. When the researcher is applying for KAKENHI, he or 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 office worker in charge in the research institution.
- 3. The research institution should submit a "Self-assessment Checklist on the Implementation 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" 5). If it has 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 FY2021 should submit them in FY2022 format after April 1, 2022onwards.
- 4. Upon composing the project team with Co-Investigators, the Principal Investigator must complete the process of obtaining their consent to become Co-Investigators using the electronic application system ("Procedures to be Performed by the Principal Investigator" 2). Prospective Co-Investigators need to obtain consent, etc. from their affiliated research institutions to become Co-Investigator ("Procedures to be Performed by the Research Institution" 4). The Principal Investigator cannot submit (send) the Research Proposal Document to his/her research institutions until the research institutions to which the Co-Investigators-to-be belong give the consent to become a Co-Investigator in the research project, and so on. For this purpose, the Principal Investigator is asked to organize the project members immediately (see page 40).

(2) Schedule after the Submission of the Application Documents (plan)

The schedule below is as of March 18, 2022

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.

International Leading Research			
June to December 2022	Review		
Late December 2022:	Notification of review results*		
	Provisional grant decision		
Late January 2023:	Formal application for grant delivery		
Early March 2023	Official grant decision		
Around March 2023	Disclosure of review results		

^{*}The notification of review results of International Leading Research will be given on the same day as the provisional grant decision

3 Review Panels and Other Matters

(1) Concerning KAKENHI Review

Omitted

(2) Notification of Review Results

- 1) The results of selection of research projects to be interviewed will be notified to the research institutions. (Scheduled in November)
- 2) JSPS will issue a notification to the PIs and research institutions via the electronic application system on whether the projects have been adopted or not based on the results of the review. (Scheduled in late December)
- 3) For research projects that were adopted, JSPS will provide the PIs with opinions expressed in the review results. For projects that were not adopted, JSPS will disclose the approximate ranks within each section on the electronic application system. For projects that were selected for Panel Review but were not adopted, JSPS will also disclose, in addition to the above, opinions expressed in the review results. (Scheduled in March)
- 4) The summary of opinions expressed in the review results of research projects that were adopted will be released on the Grants-in-Aid for Scientific Research Database (KAKEN) and other media. (Scheduled in June)

III. Instructions for Prospective Applicants

1. Procedures to be Completed Prior to 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 (KAKINHI) as Principal Investigator (PI) must meet the requirements ① and ② stated below.

A researcher carrying KAKENHI eligibility through more than one research institution can submit application(s) through either of the research institutions.

Note that researcher can apply or receive no more than one project for the research category either as a Principal investigator or a Co-Investigator.

①At 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 1), 2) and 3) stated below, and have his/her Researcher Information properly registered in the e-Rad system as eligible for KAKENHI application.

Requirements

- 1) 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.)
- 2) 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.)
- 3) The applicant must not be a graduate student or any other categories of student. (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, 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" (issued by the MEXT).

(Reference) Requirements that the research institution must meet:

Requirements

- The research institution must authorize the research project for which KAKENHI is granted, as its proper activity.
- The research institution must take responsibility for management and accounting of the

KAKENHI delivered to its researcher staffs.

2 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 by a KAKENHI grant (hereafter called "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 (hereafter called "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 former 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 an 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/she 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.

Provided that the KAKENHI employer approves such self-motivated research activities in accordance with its funding resources (project) rules, if a researcher had originally met the eligibility requirements for KAKENHI's self-motivated research activities at the time of his/her application or participation, he/she may apply for KAKENHI and continue to engage in the adopted research project even if, during the project period, he/she is no longer age 39 or under or less than 8 years after Ph.D. acquisition. If there are changes to the funding resources (project) of the KAKENHI employer, the researcher must abide by the new funding resources (project) rules and reobtain the approval to conduct self-motivated research activities as a young researcher at the time the of the changing of funding resources.

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

Attachment 1 to the "Changes in the FY2020 Call for Proposals for Grants-in-Aid for Scientific Research (KAKENHI) and Other Matters" (March 19, 2020) (Excerpt)

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 enables 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" (December 18, 2020, Agreement of the Liaison

Meeting of Related Offices and Ministries on Competitive Research Funds)

https://www.mext.go.jp/amenu/shinkou/torikumi/1385716_00001.htm

<Important Point 2>

JSPS Research Fellows (DC) and JSPS International Research Fellows are not eligible for KAKENHI application. In general, graduate students are not eligible either (See the notes 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 1) 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.
- (Note 2) If JSPS Research Fellows (SPD, PD, RPD, or CPD) meet the following application requirements at their research institutions which they register as their host research institutions, they can also apply only from the host research institutions.

<Important Point 3>

The PIs and the Co-Is constitute the "members of funded projects," as stipulated in the "Act on Regulation of Execution of Budget Pertaining to Subsidies, etc." (Act no. 179 of 1955). 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 institution, the 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.

(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 the researcher. The researcher can access the KAKENHI Electronic Application System using the ID and password and prepare the Research Proposal Document.

The ID and 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. Restrictions on Parallel Grant Application/Receipt

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

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

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

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

- ① Give considerations so as to ensure that as many excellent researchers as possible can be supported with limited funding resources.
- ② 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.
- 3 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(s). 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 categories, in accordance of the basic concepts outlined above and by taking into consideration the purpose, characteristics and other factors of each KAKENHI category

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" below, 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

Note the following points for the application.

1) You can propose no more than one project for International Leading Research, either as a Principal investigator or a Co-Investigator. A researcher carrying KAKENHI eligibility

through more than one research institution can submit application through either of the research institutions.

- 2) Even after a submitted proposal has been duly filed in the electronic application system, it may be eliminated from the subsequent review process by the rule of restriction on parallel grant application/receipt. The applicant should check against such possibility before submitting the research proposal document.
 Be careful enough that if the researcher participates in multiple project members and submits the research projects to JSPS, all the research projects applied will not be reviewed.
- 3) Even for the cases in which parallel grant application/receipt is not prohibited by the rules, the applicant should give a careful consideration so as not to fall in such situation that he/she cannot carry his/her responsibility as PI or Co-I, by committing him/herself to too many research projects. The applicant should be well acquainted with the content of "Elimination of Unreasonable Duplication and/or Excessive Concentration in the Grant Allocation" mentioned on following guideline.
- 4) There are no restrictions on parallel research grant application/receipt between KAKENHI and other competitive research funding schemes. Still, applicants should read the description in the column "Eliminate Unreasonable Duplication and/or Excessive Concentration in the Grant Allocation" on following guideline.

3. Preparation of the KAKENHI Application Forms (Research Proposal Document)

Grants-in-Aid for Scientific Research is a competitive research funds intended to provide financial support for creative and pioneering research conducted by individual researchers. Therefore, 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.

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

For submission of a research proposal, the applicant (PI) must 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.

In addition, applicant must also submit the Letters of Intent from overseas researchers as part of the Research Proposal Document.

Instructions on the preparation and submission of the KAKENHI Research Proposal Document are detailed below.

(1) Preparation of Research Proposal Document

In order to apply, the applicant must first access the Electronic Application System using his/her e-Rad ID and Password, and prepare and upload the Research Proposal Document on the System.

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:

Items pertaining to the content of the research plan. Various forms can be downloaded from the JSPS website:

(URL: https://www.jsps.go.jp/english/e-grants/grants09 il.html)).

Upload the completed forms to the Electronic Application System to complete the research proposal document in PDF format. (Paper-based applications will not be accepted.)

Research category Application Section	Research Proposal Document		
	Items to be entered in	Forms to be uploaded	Items to be entered in
	the Website	as an attached file (File	the Website
	(First half)	ID)	(Second half)
International Leading Research	To be entered in the		To be entered in the
	electronic application		electronic application
	system	S-64 (1)	system
	(Title of research	S-64 (2)	(Research expenditure
	project, Fundamental	S-64 (3)	and description of each
	data on the research	S-64 (4)	expenditure categories,
	project such as total	S-64 (L)	Status of application
	budget, Data on the		and acquisition of
	project members, etc.)		research grants, etc.)

^{*} Forms can be downloaded from the "Grants-in-Aid for Scientific Research - KAKENHI" page within the JSPS website (URL: https://www.jsps.go.jp/english/e-grants/grants09 il.html) even before obtaining an e-Rad ID and password.

About the Letter of Intent

Form S-64 (L) which needs to be attached as part of the Research Proposal Document: The Letter of Intent is to be collected from an overseas joint researcher in time for the application to confirm that applicant jointly conducts the research project with the overseas researcher. Applicant should ask the overseas joint researcher (who is capable of assuming responsibility in the research plan; in case a researcher group, the leading researcher of the group) to complete and sign the letter. When you receive it over an electronic file, please save the information on the related correspondences including email messages. (Note that applicants are requested to upload the letter of intent only.) When you receive it on paper, please be sure to convert the form to PDF before uploading it to the electronic application system.

If the research project is to be conducted with the engagement of several overseas joint researchers, select one or more (up to three) leading researchers for the submission of the Letters of Intent, and upload the letters using this form.

Ouploaded Letter of Intent will be used in review process as a part of the Research Proposal Document. Please inform the researchers submitting the Letters of Intent that (as set forth below in (2) Electronic Submission of the Research Proposal Document, 4) their names and other personal information of overseas joint researchers contained in the Letters of Intent and Research Proposal Document will be used for administrative tasks of KAKENHI grants (which may include providing personal information to external contractor(s) in charge of the electronic processing and management of KAKENHI data).

(2) Electronic Submission of the Research Proposal Document

- 1) An applicant should prepare his/her Research Proposal Document (PDF files) by entering the "Items to be entered in the Website" and by uploading the separately prepared "Forms to be uploaded" to the Electronic Application System, following the instructions in the "Procedures for Preparing and Entering a Research Proposal Document for Fund for the Promotion of Joint International Research (International Leading Research)" and "Procedures for Preparing and Entering a Research Proposal Document (Items to be entered in the Website) for Fund for the Promotion of Joint International Research (International Leading Research)".
- 2) Any Research Proposal Document prepared using colors will be reviewed on an as-is basis. Therefore, in preparing the Research Proposal Document, the applicant should pay attention to the clarity of the figures when printed in gray scale.
- 3) The Research Proposal Document will be collected and submitted to JSPS by the research institution to which the PI (applicant) is affiliated. 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.)

Upon submission, the applicant should carefully check the content of the completed Research Proposal Document (PDF files) before proceeding to "Check Completed and Submission." (This will cause the Research Proposal Document (PDF files) to be submitted to the administrative section of the affiliated research institution.) After "Approval" by his/her institution, the applicant can make no further corrections or modifications to the submitted Research Proposal Document (PDF files).

4) The personal information contained in the Research Proposal Document and any personal information registered in Electronic Application System will be used for purposes such as the elimination of unreasonable duplication and/or excessive concentration in the allocation of competitive research funds, the appropriate funding of KAKENHI grants, and to conduct questionnaires on scientific technology policies including KAKENHI grants (this includes providing the data to external contractor(s) in charge of electronic processing and management of the KAKENHI data). Any such information will also be provided to the e-Rad system. (The information registered in the e-Rad system is utilized for proper assessment of research and development by national funding, development of effective and efficient comprehensive strategy, planning and development of resource allocation policy, etc. Therefore, the information will be supplied to the Cabinet Office through the e-Rad system. The applicant may be requested to cooperate in verification of the information and other related works.)

The information on the adopted KAKENHI projects (the title of research project, the name of PI and his/her affiliated research institution, the grant to be delivered, research period, etc.) is categorized as "information planned to be made public," as laid down in Article 5, paragraph 1,

item 1 of the "Act on Access to Information Held by Incorporated 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 3) 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 budget less than 100,000 yen.

2. Eligibility of the Project Members

The PI (see page 38, 1) should organize a research team with an appropriate combination of Co-Investigator(s) (Co-I) (see page 39, 2), and Research Collaborator (s) (see page 40, 3).

As is the case for PI, Co-Investigator(s) is also subject to verification of their KAKENHI eligibility by their respective research institute by the time of proposal submission (See Notes below).

On the other hand, to be a Research Collaborators, registration to the e-Rad system is not a requirement.

< Requirements >

- 1) The applicant must be an individual belonging to a research institution with a 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.)
- 2) 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.)
- 3) The applicant must not be a graduate student or any other categories of student. (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" (issued by the MEXT)

(Reference) Requirements that the research institution must meet:

- < Requirements >
 - The research institution must authorize the research project for which KAKENHI is granted, as its
 proper activity.
 - The research institution must take responsibility for management and accounting of the KAKENHI delivered to its researcher staffs.
- (Note 1) A JSPS Research Fellow (SPD, PD, RPD or CPD) who meets the above application requirements at his/her host research institution can participate in a KAKENHI research project as Co-I. There are no restrictions on the research categories in which he/she can participate as Co-I unlike in the case of participating as PI.
- (Note 2) JSPS Research Fellows (DC), International JSPS Fellows and graduate students (or students of any other category) cannot be a PI or Co-I of a KAKENHI project.

<Important point 1>

KAKENHI employee 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. In this case, he/she can apply as PI, or participate to other KAKENHI project(s) as 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 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.

 Provided that the KAKENHI employer approves such self-motivated research activities in accordance with its funding resources (project) rules, if a researcher had originally met the eligibility requirements for KAKENHI's self-motivated research activities at the time of his/her application or participation, he/she may apply for KAKENHI and continue to engage in the adopted research project even if, during the project period, he/she is no longer age 39 or under or less than 8 years after Ph.D. acquisition. If there are changes to the funding resources (project) of the KAKENHI employer, the researcher must abide by the new funding resources (project) rules and reobtain the approval to conduct self-motivated research activities as a young researcher at the time the of the changing of funding resources.

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 enables 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" (December 18, 2020, Agreement of the Liaison Meeting of Related Offices and Ministries on Competitive Research Funds)

 $https://www.mext.go.jp/a_menu/shinkou/torikumi/1385716_00001.htm https://www.mext.go.jp/amenu/shinkou/torikumi/1385716_00001.htm$

<Important point 2>The PIs and the Co-Is constitute the "members of funded projects", as stipulated in the "Act on Regulation of Execution of Budget Pertaining to Subsidies, etc." (Act no. 179 of 1955). 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 institution, the 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 FY will be suspended.

1) 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 summarization of 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 a 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.

(B) When organizing project members, Principal Investigator must obtain a consent to become a Co-Investigator from the researcher via electric application system in advance so that the relationship between the Principal Investigator and the Co-Investigator is clear.

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

2) Co-Investigator (Co-I)

- (A) The Co-Investigator is a recipient of the grant who, in cooperation with the PI, bears responsibility for the implementation of the research project in accordance with the clear share of his/her roles. The Co-I must be a member of the project who receives a share of the grant based on the contents of the share as a recipient of the grant. (This rule applies even when the Co-I belongs to the same institution as the PI.)
 - An individual who is anticipated to become unable to carry through the Co-I's responsibility over the entire research period due to, for example, the loss of the KAKENHI eligibility caused by Co-I's own accord, should refrain from becoming a Co-I.
- (B) The Co-I must be registered in the e-Rad system as being "Eligible for KAKENHI Application". It is also required that he/she is *not* designated as being "ineligible for grant receipt" in the fiscal year covered by a call for proposals (a suspension of eligibility), as a penalty for such misconducts as an improper grant spending, a fraudulent grant acquisition or a research misconduct associated with the KAKENHI or any other competitive research funds.

< About the Process of Participation of Co-Investigator in Project Members >

A consent process to become a Co-Investigator is conducted via the electronic application system if the applicant adds a Co-Investigator to project members. Following processes for both Principal Investigator and Co-Investigators are necessary in the application process.

[Actions to be taken by the Principal Investigator]

• By submitting (sending) Research Proposal Document to his/her research institution, Principal Investigator must enter the information on the researcher whom Principal Investigator wants to add to the project members in the "Project Members List" column on the "Application Information Input" screen, request the researcher to become a Co-Investigator, and obtain a consent from the Co-Investigator-to-be.

[Actions to be taken by the researcher who is requested to become a Co-Investigator]

• If the researcher is requested to become a Co-Investigator by the Principal Investigator via the electronic application system, the researcher must select "Consent" or "Dissent" after confirming the contents to be consented.

Procedures to be Performed by the Procedures to be Performed by the Procedures to be Performed by the Research Institutions to which **Principal Investigator** Co-Investigator-to-be Co-Investigator-to-be belongs ① Request to become a Co-Investigator -② Give a consent to become a ➤ ③ Give a consent to become a Co-Investigator Co-Investigator as a standpoint of the research institutions The Principal Investigator requests to The Co-Investigator-to-be is requested The information consented by the the researcher who is to be requested to to participate in the project members as Co-Investigator-to-be is shown via the become a Co-Investigator to participate a Co-Investigator from the Principal electronic application system and then in the project members as a Investigator via the electronic the research institutions also conduct the Co-Investigator via the electronic application system and then the process such as giving consents to application system Co-Investigator-to-be selects a consent him/her. (or a dissent).

- The organization of the project members should be completed through all necessary procedures mentioned above to be carried out with the approximate target of **two weeks prior to the deadline for the submission of the application documents**. (All application procedures are workable on the system after two weeks prior to the deadline for the submission of the application documents. To submit (send) application documents to the research institution to which the Principal Investigator belongs, it is necessary to obtain consents from all the Co-Investigators-to-be.
- * Please refer to the Kakenhi (Grants-in-Aid for Scientific Research) Electronic Application System Operation Manual (URL: https://www-shinsei.jsps.go.jp/kaken/topkakenhi/shinsei_ka.html) for the detailed information such as operating environments, operating methods, and so on.
- * After the researcher has given a consent to become a Co-Investigator, the information on the Co-Investigator-to-be will be shown to the research institution to which he/she belongs via the electronic application system, and then it will be necessary to obtain a consent, etc. from the research institution as well.
 - * Since the Principal Investigator cannot submit (send) the Research Proposal Document to his/her research institution until the research institution to which the Co-Investigator-to-be belongs gives the consent, etc., be sure to finish the process in time for the deadline of the submission.

3) Research Collaborator

- (A) Research Collaborator is an individual who cooperates in the implementation of a research project other than the PI and the Co-I(s).
- (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 Fellow (*), 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.

(*) JSPS Fellows (SPD, PD, RPD or CPD) who are *not* registered as eligible for KAKENHI application in their host her research institution, and JSPS fellows (DC)

[Participation of Early-Career Researchers as Project Members in International Leading Research] In view of the aims of this research category to achieve research results of higher quality and to contribute to fostering researchers who can play leading roles in the international research community, we seek for research plans that are to be carried out by research groups that are composed of multiple researchers (Principal Investigator (PI) and Co-Investigators (Co-Is)), and a group of postdoctoral fellows (PDs) and graduate students (doctoral course students, DCs) as Research Collaborators. The number of PDs and DCs should be approximately three times that of the PI and Co-Is. The number of Research Collaborators (PDs and DCs) on the team may temporarily divert from the original plan, provided that measures are to be taken so as not to impact the performance of the research project.

It is mandatory to include the following initiatives in the research plan, therefore, applicants should give due attention to the feasibility of the project in view of the situation, etc. of the overseas research institutions accepting early-career researchers when formulating the research plan.

- Plans of dispatching PDs and DCs to overseas research institutions and of implementing international exchanges (mainly for 2-3 years);
- Initiatives to support the self-reliance of PDs and DCs (e.g., financial support to enable PDs and DCs to conduct research with a certain level of discretion and responsibility, subject to the guidance of independent researchers).

3 Requirements for the Appropriation of Research Expenditure

1) Expenditures that can be covered by direct expense

Expenditures necessary for the implementation of the research plan (including those necessary for summarization of the research achievements)

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

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

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

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

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

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

[Research categories subject to the buyout system]

Specially Promoted Research, Transformative Research Areas (excluding Scientific Research on Innovative Areas Platforms for Advanced Technologies and Research Resources), Scientific Research on Innovative Areas (Research in a Proposed Research Area) (excluding "Platforms for Advanced Technologies and Research Resources"), Scientific Research, Challenging Research (including "Challenging Exploratory Research"), Early-Career Scientists (including "Young Scientists (A/B)"), Research Activity Start-up, International Leading Research, 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, Transformative Research Areas (Scientific Research on Innovative Areas Platforms for Advanced Technologies and Research Resources), Scientific Research on Innovative Areas (Research in a Proposed Research Area) (Platforms for Advanced Technologies and Research Resources), Fostering Joint International Research (A) (including the Joint International Research (A) (including the Joint International Research before name change) and International Research (B) (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)" (Oct 9, 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.

2) Spending that cannot be covered by KAKENHI:

- A.Costs associated with buildings and other facilities (excluding expenditure for installations necessary for installation of research equipment purchased by the KAKENHI direct expense).
- B. Expenditures for measures to deal with accidents or disasters that occurred during the implementation of funded project
- C. Personnel cost/Honoraria for the PI or Co-I(s)
- 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 all the research categories of this Call for Proposals. Applicant does not need to state the indirect expense in his/her Research Proposal Document.
- 4. Upon application, the applicant must select one review section of choice ("Humanities and Social Sciences," "Science and Engineering," or "Biological Sciences") which best matches his/her research proposal.

4. Completion of Research Ethics Education Course or Other etc.

Principal Investigators and Co-Investigators taking part in a research funded by the 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 FY2022 Grants-in-Aid for Scientific Research, and <u>upon the formal application for a grant delivery</u>, it shall be confirmed through the electronic application system whether they will have taken the research ethics education coursework, etc.

If a PI or Co-I 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 Editorial Committee of the JSPS named "For the Sound Development of Science, the "e-Learning Course on Research Ethics [eL CoRE] or "APRIN e-learning program (eAPRIN)", or attend a lecture on research ethics conducted by research institutes based on "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 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 the JSPS, by the time of the formal application for grant delivery.
- From each Co-Investigator-to-be, the PI must
 - ① obtain a consent of participation in the research project as a Co-I through the electronic application system and also a consent expressing "the completion of a seminar attendance or other kinds of coursework relevant to research ethics by the time of the formal application for the grant delivery of the research project in question", by the time of submitting (sending) the Research Proposal Document to the research institution which the PI belongs to, and:
 - ② ascertain that the Co-I has actually completed the coursework such as an attendance at the lecture on research ethics by the time of the formal application for the grant delivery.

[Actions to be taken by the Co-Investigator]

• The Co-I must provide the PI with both a consent of the participation in the research project as a Co-Investigator via the electronic application system and a consent expressing "the completion of a seminar attendance or other kinds of coursework relevant to research ethics by the time of the formal application for the grant delivery of the research project in question".

• The Co-I 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 Editorial Committee of the JSPS named "For the Sound Development of Science", the "e-Learning Course on Research Ethics [eL CoRE] or "APRIN e-learning program (eAPRIN)", or attend a lecture on research ethics conducted by research institutes based on "Guidelines for Responding to Misconduct in Research" (Adopted by the MEXT on August 26, 2014), and report the PI to the effect by the time of the formal application for the grant delivery by the PI.

• The Co-I must understand thoroughly and 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 the JSPS, and report the PI to the effect that he/she has done, by the time of the formal application for the grant delivery by the PI.

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, other many university faculty databases and so on, and also the Japanese Government as a whole is going to further utilize the Researchmap.

Furthermore, since the posted information in the Researchmap and/or the database of the Grants-in-Aid for Scientific Research (KAKEN) is to be handled as a reference according to the necessity in the review of the KAKENHI, 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 8,000 researchers as reviewers. The peer review forms the basis of the autonomy of academic community and plays an important role in ensuring quality of scientific research and its improvement. The review of applications is carried out with the constructive and mutually critical spirit of scientists and based on the purely academic value. It is no exaggeration to say that the KAKENHI review system is indispensable in supporting Japan's scientific research into the future among other research funds.

The Grants-in-Aid for Scientific Research (KAKENHI) program is supported by researchers who have responsibilities not only to conduct the funded research projects as applicants and grant recipients but also as a reviewer. 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 (approx. 141,000entries as of FY2021) 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. Other Relevant Issues

1. 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.

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

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

O"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: https://www.mext.go.jp/b menu/shingi/gijyutu/gijyutu17/houkoku/1366220.htm

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

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

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

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

OUnified Rules for Administrative Procedures, Etc. Pertaining to Competitive Research Funds (March 3, 2021, Agreement of the Liaison Meeting of Related Offices and Ministries on Competitive Research Funds)

URL: https://www8.cao.go.jp/cstp/compefund/toitsu_rule_r30305.pdf

2. 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

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 the interim/ex-post 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.

3. 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

4. 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

5. 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

Grants-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.

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(*) 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: https://nbrp.jp/resource/

< Inquiries >

Division of Genomic Medicine, Department of Health and Clinical Data, Japan Agency for Medical

Research and Development

Telephone: 03-6870-2228

6. 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

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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.

OMinistry of Economy, Trade and Industry: Security Trade Control (General)

https://www.meti.go.jp/policy/anpo/

OMinistry of Economy, Trade and Industry: "Handbook on Security Trade Control"

https://www.meti.go.jp/policy/anpo/seminer/shiryo/handbook.pdf

Ocenter for Information on Security Trade Controls

https://www.cistec.or.jp/index.html

O"Guidance for the Control of Sensitive Technologies for Security Export for Academic and Research Institutions 3rd Edition"

https://www.meti.go.jp/policy/anpo/law_document/tutatu/t07sonota/t07sonota_jishukanri03.pdf

7. Strict Implementation of United Nations Security Council Resolution 2321

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

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

The UNSC Resolution 2321 can be found at:

 MOFA: United Nations Security Council Resolution 2321, Japanese translation (MOFA Notice No. 463 (issued on December 9, 2016)

https://www.mofa.go.jp/mofaj/files/000211409.pdf

8. Improvement of Treatment of Students in the Doctoral Course

"The Sixth Science, Technology, and Innovation Basic Plan" (Cabinet Decision on March 26, 2021) addresses the need to enhance financial support for doctoral students in particular, in order to attract outstanding talents from home and abroad, and calls for research institutions to provide greater employment opportunities for doctoral students as research assistants (RAs) and to improve their treatment. To this end, the Basic Plan, for example, sets a numerical target to increase the number of students in doctoral programs receiving the amount equivalent to living expenses to about three times the current number (which is equivalent to about 30% of all doctoral students receiving the amount equivalent to living expenses).

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

Based on the above, when employing a doctoral student as RA, etc. for a KAKENHI project, set the hourly wage according to the nature and content of his/her job based on the standard of each research institution and pay the wage according to the actual work hours under the proper labor management.

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

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

"The Sixth Science, Technology, and Innovation Basic Plan" (Cabinet Decision on March 26, 2021) identifies the importance of efforts to improve the security of professional quality and treatment so that the positions of University Research Administrators (URAs) and other management personnel will become attractive. The Comprehensive Package to Strengthen

Research Capacity and Support Young Researchers (January 23, 2020, Council for Science, Technology, and Innovation) also addresses the need to establish career paths for management personnel, URAs, engineers, etc.

In light of these initiatives, research institutions are encouraged, to the extent possible, to secure certain lengths of fixed-term employment (of about five years or longer) for URAs and other management personnel (who are currently hired or will be hired newly by research institutions) when engaging them in the management of KAKENHI research programs, by using not only KAKENHI, but also funds such as indirect expenses and basic costs under other external funds, and donations, for example.

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

10. Promoting Gender Equality in JSPS Programs

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

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

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:

Research Aid Division III, Research Program Department, Japan Society for the Promotion of Science

Telephone: 03-3263-1888

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

(2) For inquiries concerning the use of the KAKENHI electronic application system:

· Call center:

Telephone: 0120-556-739 (toll-free)

* Available from 9:30 to 17:30 every day except Saturdays, Sundays, National Holidays and the New Year Holidays (from December 29 until January 3)

• The following phone numbers are also available:

Research Aid Planning Division, Research Program 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)":

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

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

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

Office for Research Integrity Promotion, Research Environment Division, Science and Technology Policy Bureau (MEXT)

Telephone: 03-6734-3874

(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. The Application Procedures can be downloaded from the following website.

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

URL: https://www.jsps.go.jp/english/e-grants/grants09 il.html