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

# FY2024

Fund for the Promotion of Joint International Research
(International Collaborative 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 1, 2024

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

# Introduction

This document describes the procedures and other matters relevant to the "Call for Proposals for the Grants-in-Aid for Scientific Research -KAKENHI- for FY2024", including "Fund for the Promotion of Joint International Research (International Collaborative Research)".

The contents are :



"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 actors. Relevant actors are requested to thoroughly check the related chapters.

This Call for Proposals is announced prior to the finalization of the national budget for FY2024, so as to let prospective applicants proceed with an early preparation for the review and enable to commence their research activities as soon as possible. It is, therefore, to be reminded that, depending on the situation of the national budget enactment, details on the grant allocation and other matters may be subject to change at a later stage.

See Major Changes in the Call for Proposals for Fiscal Year 2024 for details on these changes.

Explanation of Important Matters

- Grants-in-Aid for Scientific Research is a competitive research funding intended to provide financial support for creative and pioneering research conducted by individual researchers. Therefore, the contents of the Research Proposal Document must be original planned by the applicant.
  Plagiarism and/or misappropriation of the research contents of others are strictly impermissible. Applicants must comply with research ethics. Please note that the use of generative AI in the preparation of the Research Proposal Document causes the risk of inadvertent infringement of copyright and leakage of personal information and confidential information. It is the responsibility of the individual researcher to make appropriate decisions about the usage of generative AI.

- The research using the KAKENHI fund should be carried out by the researcher(s)' own initiative and responsibility. Therefore, the implementation of a KAKENHI research project and publication of the research results are solely attributed to the 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).

- From the perspective of enhancing the quality of research activities among the international scientific research networks, researchers are urged to disseminate their research results aggressively to the international society by publication of scientific papers in international journals, co-authoring of international papers, presentations in international conferences, etc.

# < Major Changes for Call for Proposals in Fiscal Year 2024 >

## (1) Ensuring International Research Activities

○ This document clarifies that from the perspective of encouraging researchers to conduct international research activities, applicants who have made international efforts related to their research plans (such as their records of joint international research and research history in overseas institutions) can describe such efforts in their Research Proposal Documents as necessary. (Refer to III. Instructions for Prospective Applicants 3. Preparation of the KAKENHI Application Form (Research Proposal Document), etc. (1) (Reference))

○ This document clearly states that researchers are urged to make an effort to disseminate their KAKENHI-funded research achievements aggressively to the international society. (Refer to Introduction and I. Outline of the Grants-in-Aid for Scientific Research -KAKENHI- 6. Dissemination, etc. of Research Achievements Supported by KAKENHI)

## (2) Research Data Management

○ Starting from fiscal year 2024, researchers are asked to prepare research Data Management Plans (DMPs) of their projects under all research categories in principle. Details such as an example of a DMP will be given at the time of provisional grant decision. As such, please store, manage, and take other measures for research results and data of your research projects in accordance with your DMPs.

# Table of Contents

[References]

The application forms (Research Proposal Document) and other application materials are contained in separate files. Please refer to "Supplementary edition to the Application Procedures for Grants-in-Aid for Scientific Research -KAKENHI- for FY2024 (Fund for the Promotion of Joint International Research (International Collaborative 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).

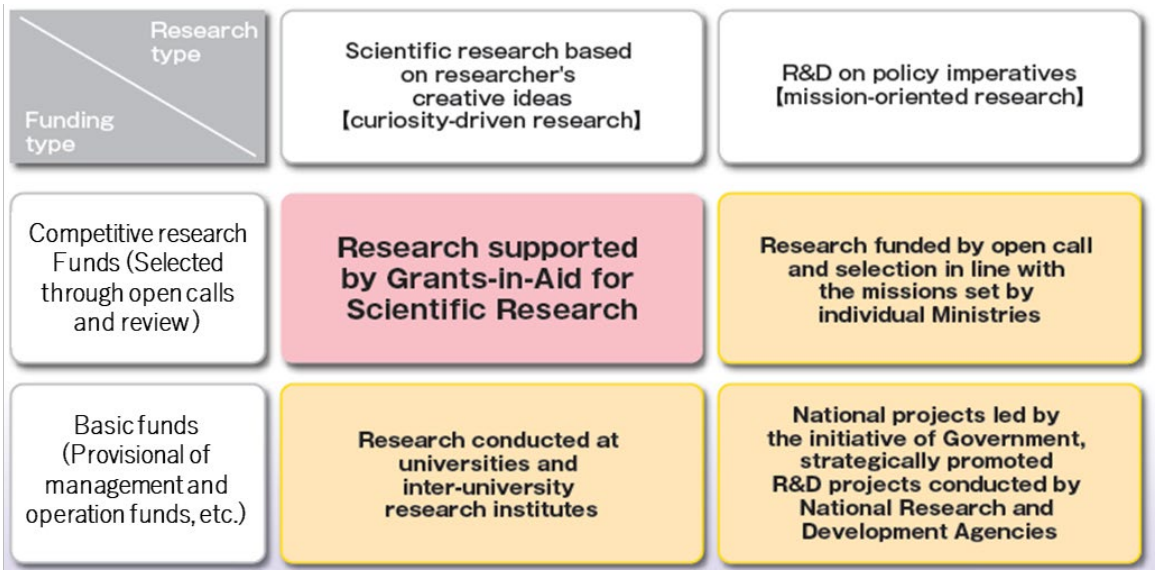
  URL: https://www.jsps.go.jp/english/e-grants/grants09_itn_collab.html

# 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 2024

| 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.<br>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.<br>The period is 5 years. The budget range is generally set between 10 million to 300 million yen per fiscal year per proposed area. | SG |

| | | | |
|---|---|---|---|
| | [A call for proposals for Summary of research outcome of completed research areas only is put out in FY2023 and beyond.] | | |
| 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.))<br>(B) Research areas proposed by compact groups of researchers who will be bearers of the next generation of research with a smaller budget scale (about 3 or 4 groups), which aim to create research areas that will lead the way to radical transformation of and change in the existing framework and/or direction of research as well as upgrade and level-up of scientific research in Japan through more challenging and exploratory research, and expected to lead to the Transformative Research Areas (A) in the future. (3 years; 50 million yen or less per fiscal year per research area) | | SG |
| Grant-in-Aid for Scientific Research | (S): Creative/pioneering research conducted by one or a relatively small number of researchers.<br>5 years (in principle) 50 million to 200 million yen<br>(A), (B), (C): Creative/pioneering research conducted by one researcher or jointly by multiple researchers.<br>(A) 3 to 5 years; 20 million to 50 million yen<br>(B) 3 to 5 years: 5 million to 20 million yen<br>(C) 3 to 5 years; 5 million yen or less | (S) | SG |
| | | (A) | |
| | | (B) | MF |
| | | (C) | |
| Grant-in-Aid for Challenging Research (Pioneering/Exploratory) | Research conducted by a single or multiple researchers that aims at radically transforming the existing research framework and/or changing the research direction and has a potential of rapid development.<br>The scope of the (Exploratory) category encompasses research proposals that are highly exploratory and/or are in their budding stages.<br>(Pioneering) 3 to 6 years; 5 million to 20 million yen<br>(Exploratory) 2 to 3 years; 5 million yen or less | | MF |
| Grant-in-Aid for Early-Career Scientists | Research conducted by an individual researcher (*2) who is less than 8 years after Ph.D. acquisition.<br>2 to 5 years; 5 million yen or less | | MF |
| Grant-in-Aid for Research Activity Start-up | Research conducted by a single researcher who has been newly hired by a research institution, or who has returned from his/her childcare leave, etc. or from the nursing of his/her preschool child(ren).<br>1 to 2 years; 3 million yen or less (1.5 million yen or less if the research period is 1 year) | | MF |
| Grant-in-Aid for Encouragement of Scientists | Research conducted by an individual who is ineligible for application for other KAKENHI categories (e.g., individuals who belong to educational or research institutions, private companies, etc. and engage in the researches to contribute to the promotion of the science).<br>1 year; 100 thousand to 1 million yen | | SG |
| Grant-in-Aid for Special Purposes | Research projects of pressing urgency and importance. | | MF |
| Grant-in-Aid for Publication of Scientific Research Results | | | SG |
| Publication of Research Results | Subsidy for publication and/or international dissemination of research achievements of high academic values executed by academic associations and other organizations. | | |
| Enhancement of International Dissemination of Information | Subsidy for efforts by academic societies and other scholarly organizations to strengthen international dissemination of academic information for the purpose of international academic exchange. | | |
| Scientific Literature | Subsidy for academic publication of research results (books) authored by an individual or a group of researchers. | | |
| Databases | Subsidy for creation and operation of a database open to public use by an individual or a group of researchers. | | |
| Grant-in-Aid for JSPS Fellows | Funding period is up to 3 years for research conducted by JSPS Fellows (including Foreign JSPS Fellows). As for Cross-border Postdoctoral Fellowship (CDP) the period is up to 5 years | | MF |

| | | |
|---|---|---|
| Fund for the Promotion of Joint International Research | | MF |
| 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.<br>(7 years (extendable up to 10 years); up to 500 million yen) | |
| Fostering Joint International Research | Support of joint international research project conducted by a KAKENHI grantee in collaboration with researcher(s) at a foreign university or a research institution over a period of 6 to 12 months. The grant seeks to markedly advance research plans for the root research project and to foster independent researchers who can be internationally competitive. (The budget is up to 12 million yen.) [The category name will be changed from the FY2023 call for proposals.] | |
| International Collaborative Research | 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)<br>[After FY2018 call for proposals "International Activities Supporting Group" has been incorporated into "Grant-in-Aid for Scientific Research on Innovative Areas "Administrative Group." (It continued until the FY2019 call for proposals.)] | |
| Home-Returning Researcher Development Research | Support of research to be conducted by a Japanese researcher with current affiliation abroad who is to be newly appointed at university or research institution in Japan. (The period is up to 3 years. The budget is up to 50 million yen.) | |

*1 SG: Series of Single-year Grants, MF: Multi-year Fund

*2 Those eligible include individuals who are in the prospect of acquiring Ph.D. and individuals who are deemed less than eight years after the acquisition of their Ph.D. by exempting the period(s) of prenatal/postpartum break or childcare leave.

## 3. Role Sharing Between MEXT and JSPS Research Categories

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.

| **Research category** | **Call for proposals, Review**<br><br>(Preparation of the document(s) for procedures, Reception of proposal submission) | **Grant delivery**<br><br>Notifications of provisional grant decision<br>Reception of the application form (after provisional grant decision) and other documents for the relevant procedures.<br>Notification of grant decision |
|---|---|---|
| Scientific Research on Innovative Areas,<br>Transformative Research Areas,<br>Special Purposes,<br>Fund for the Promotion of Joint International Research (International Activities Supporting Group) | MEXT | JSPS |

| | | |
|---|---|---|
| Specially Promoted Research,<br>Scientific Research,<br>Challenging Exploratory Research<br>Challenging Research,<br>Early-Career Scientists,<br>Research Activity Start-up,<br>Encouragement of Scientists,<br>Publication of Scientific Research Results,<br>JSPS Research Fellow,<br>Fund for the Promotion of Joint International Research (International Leading Research, Fostering Joint International Research,<br>International Collaborative Research,<br>Home-Returning Researcher Development Research) | JSPS | JSPS |

## 4. Rules Pertaining to KAKENHI

KAKENHI (Multi-year Fund) is governed by the laws and regulations including Act on Regulation of Execution of Budget Pertaining to Subsidies, etc. and the application of the "Basic Policy on the Management of the KAKENHI (Multi-year Fund) (Decision by the Minister of Education, Culture, Sports, Science and Technology)", the "Procedures on the Handling of JSPS Grants-in-Aid for Scientific Research (KAKENHI (Multi-year Fund))" (Act No. 19, 2011) and other rules.

### (1) Three Types of Rules Pertaining to KAKENHI

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

i) Application Rules: rules concerning the submission of research proposals

ii) Assessment Rules: rules concerning the pre-assessment (review) of applications, and rules concerning the interim, and other progress assessment of granted projects.

iii) Spending Rules: rules concerning the use of KAKENHI

These three sets of rules apply as follows.

[Grants-in-Aid for Scientific Research]

| | **Application Rules** | **Assessment Rules** | **Spending Rules** |
|---|---|---|---|
| KAKENHI (Multi-year Fund) | JSPS<br>Application Procedures | JSPS<br>Rules concerning the review and assessment for Grants-in-Aid for Scientific Research | JSPS<br>For researchers:<br>Funding conditions<br>For research institutions:<br>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)**

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

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

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

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, 2021) states common understandings among the research-related ministries and offices in regard to allocation of competitive research funds, in terms of elimination of such inappropriate practices as unreasonable duplication and/or excessive overconcentration in the grant allocation, fraudulent acquisition and/or unlawful use of grants, and misconducts in research 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 is 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, 2021)**

2. Elimination of Unreasonable Duplication and/or Excessive Overconcentration in the Grant Allocation

(1) Basic Policy of the Unreasonable Reduplication and Excessive Overconcentration

i) In the Guideline, "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."

- ○ Cases 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.
- ○ Cases where an application has been made again for substantively the same research project as another project that has already been adopted, and for which the allotment of competitive research funds / other research funds has already been completed.
- ○ Cases where there is duplication in the use of research funds among more than one research projects.
- ○ Other cases corresponding to those above.

ii) In the Guideline, "Excessive Concentration" is a situation in which the entire research funds that are allotted to one and the same researcher or research group (hereinafter referred to as "researcher, etc.") in the fiscal year in question exceeds the limit within which they can be used effectively and efficiently, and in which the research funds cannot be used within the research period. Either of the following cases falls under "Excessive Concentration."

- ○ Cases where, in the light of the abilities of the researcher, etc. and the research methods, etc., excessive research funds are allotted.
- ○ Cases where, in comparison with the effort (the time allocation rate (%) of time necessary for the implementation of the research activities with the entire working time of researcher) that is being allotted to the research project in question, excessive research funds are allotted.
- ○ Cases where the purchase of unnecessarily expensive equipment is carried out.
- ○ Other cases corresponding to the cases mentioned above.

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

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

・"Improper Grant Spending":

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

・"Fraudulent Grant Acquisition":

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

・"Research Misconduct":

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

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.**

Besides, 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 FY2024 (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 FY2023. Refer to the website below for the schemes to which this specifically applies at present.

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

## 【Period of KAKENHI suspension】

### Improper Grant Spending and Fraudulent Grant Acquisition of KAKENHI

<table>
<tr><th>Researcher categories</th><th colspan="2">Extent of the improper grant spending</th><th>Period of KAKENHI suspension</th></tr>
<tr><td>I. Researchers who committed improper grant spending of KAKENHI and researchers who conspired in such acts</td><td colspan="2">1. Misappropriation of KAKENHI for personal gain</td><td>10 years</td></tr>
<tr><td rowspan="3">II. Researchers who committed improper grant spending of KAKENHI and researchers who conspired in such acts</td><td rowspan="3">2. Other than 1.</td><td>(i) Cases of major seriousness and maliciousness</td><td>5 years</td></tr>
<tr><td>(ii) Cases other than (i) and (iii)</td><td>2 to 4 years</td></tr>
<tr><td>(iii) Cases of minor seriousness and maliciousness</td><td>1 year</td></tr>
<tr><td>III. Researchers who acquired KAKENHI by deception or other fraudulent means and researchers who conspired in such acts</td><td colspan="2">-</td><td>5 years</td></tr>
<tr><td>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.</td><td colspan="2">-</td><td>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.</td></tr>
</table>

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**

<table>
<tr><th colspan="3">Individual Involvement in the Misconducts</th><th>Negative Impacts on Science and on Public at Large Degree of Maliciousness</th><th>Period of KAKENHI suspension</th></tr>
<tr><td rowspan="4">Subject of Research Misconduct</td><td colspan="2">(a) Particularly malicious individual(s) who, for example, had intention of research misconduct from the very beginning of the research</td><td></td><td>10 years</td></tr>
<tr><td rowspan="3">(b) Author(s) of paper(s), etc. related to the research in which research misconduct (s) have been identified (other than (a) above)</td><td rowspan="2">Responsible author(s) of the paper(s) in question (corresponding author, lead author or other authors bearing equivalent responsibilities)</td><td>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</td><td>5 to 7 years</td></tr>
<tr><td>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</td><td>3 to 5 years</td></tr>
<tr><td>Author(s) of the paper(s) in question other than the responsible author(s) described above</td><td></td><td>2 to 3 years</td></tr>
<tr><td colspan="2">(c) Individual(s) involved who are not the authors of the research paper(s) for which research misconduct(s) are identified.</td><td></td><td>2 to 3 years</td></tr>
<tr><td colspan="3" rowspan="2">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</td><td>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</td><td>2 to 3 years</td></tr>
<tr><td>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</td><td>1 to 2 years</td></tr>
</table>

* 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 of KAKENHI or 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 in February 1, 2021, adopted by MEXT) and the "Guidelines for Responding to Misconduct in Research (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"
(Revised by the Minister of MEXT on February 1, 2021)
URL: https://www.mext.go.jp/a_menu/kansa/houkoku/1343904_21.htm

○ "Guidelines for Responding to Misconduct in Research"
(Decided by the Minister of MEXT on August 26, 2014)
URL: https://www.mext.go.jp/a_menu/jinzai/fusei/index.htm

**(Reference) Examples of improper grant spending, fraudulent grant acquisition and research misconduct of KAKENHI.**

**O Improper grant spending**
- Someone instructed a trader to forge fictitious transaction pretending to have purchased expendables, made the university pay a KAKENHI for them, and then instructed the trader to keep the money as deposit for future use.
- Someone instructed a trader to forge a fictitious transaction, obtaining a false invoice which carries item 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 broadly available to other researchers and to the general public, through posting and publication of the "Research Outline" and the "Report on the Research Achievements" on the Grants-in-Aid for Scientific Research Database (KAKEN) operated by the National Institute of Informatics.

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

Upon disseminating the research achievements, please take note of the following issues as well.

### (1) The acknowledgement for KAKENHI grant in research publications

When publishing research achievements of the KAKENHI project, researchers should be sure to express that the project has been supported by the KAKENHI grant, by stating in the "Acknowledgment" or other designated section of the paper, "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

We have seen the acceleration of open science efforts to advance the sharing and publication of research results, including open access to research papers and open research data, and help to speed up research activities and create new knowledge.

In line with the government's policy, JSPS has established its implementation policy on the promotion of open access of publications, which requires research papers funded by KAKENHI and other research grants to be openly accessible. Hence, JSPS seeks cooperation for the promotion of open access of papers.

○ Implementation policy on the promotion of open access of publications of JSPS projects (March 9, 2017, Decision of JSPS President):
URL: https://www.jsps.go.jp/file/storage/general/data/Open_access.pdf

[ What is "Open Access"]
"Open Access" refers to the idea that research papers published in peer-reviewed journals, etc. should be made freely accessible by anyone on line.

[Different Routes to Open Access]
There are three main ways of open access implementation ((i) to (iii) below).

(i) A way in which the article published in the conventional subscription fee type academic journal after a certain period (Embargo)(*1) (for example 6 months later) is made open access by opening the final manuscript to an Institutional Repository(*2) established by the research institution to which the author belongs, or by opening the final manuscript to the website, etc. established by the researchers (self-archiving) (*3).

(ii) A way to make the article open access by posting the article on the web established by the research community or public institution.

(iii) A way to make the article open access immediately by paying the publication fee (APC: Article Processing Charge) by the author of the article.

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

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

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

### (4) Management of Research Data

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

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

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

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

search platform of the said system.

You can also register metadata on other interoperable platforms that enable metadata search (including institutional repositories other than JAIRO Cloud (*3), a leading institutional repository, databases that obtain DOIs via JaLC (*4), and sectoral databases linked to CiNii Research (*5)).

Please consult with a person in charge of metadata registration at the affiliated institution.

(Reference) Supplementary terminology notes

(*1) Metadata refers to information on the nature of the very data for publication, including the created date and time, creator, format, and title of data, and is utilized mainly for centralized and efficient management of data.

(*2) The research data infrastructure system (NII Research Data Cloud) refers to a system positioned as the "core platform for the management and utilization of research data in Japan" in the Basic Policies on the Management and Utilization of Research Data Created by Publicly-Funded Research Activities. The system consists of GakuNin RDM, a management platform to manage research data, JAIRO Cloud, a public platform for the publication of research data, and a search platform for metadata search.

(*3) JAIRO Cloud is a cloud-based service to provide an institutional repository environment (available for JPCOAR members), jointly operated by the Japan Consortium for Open Access Repository (JPCOAR) and the National Institute of Informatics (NII). JPCOAR operates its community site and user helpdesk, among others, while the NII (*6) is in charge of development.

(*4) Japan Link Center (JaLC) is an institution with the authority to add digital object identifiers (DOIs) under international standards to academic contents including research papers in electronic form. The institution is jointly operated by the Japan Science and Technology Agency (JST), the National Institute for Materials Science (NIMS), the NII, and the National Diet Library (NDL).

(*5) CiNii Research is a database service that allows anyone to search for academic information, such as research papers, books and magazines, and doctoral theses. The service is developed and operated by the NII.

(*6) The NII refers to the National Institute of Informatics, Inter-University Research Institute Corporation Research Organization of Information and Systems.

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

○The Sixth Science, Technology, and Innovation Basic Plan (Cabinet Decision on March 26, 2021)
P.58-61
URL: https://www8.cao.go.jp/cstp/kihonkeikaku/6honbun.pdf

○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

○Basic Policies on the Handling of Research Data of Projects Funded by JSPS Grants
URL: https://www.jsps.go.jp/file/storage/open_science/basic_policy.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 electric application system whether the Principal Investigator and Co-Investigator(s) will have taken the research ethics education coursework, etc. (Refer to III. Instructions for Prospective Applicants 4. Completion of Research Ethics Education Course or Other etc.)

**[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/file/storage/general/j-kousei/data/rinri.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 Collaborative Research) [ KAKENHI (Multi-year Fund)]

A) Purpose:

This grant supports researchers aiming at achieving a major development in creative and pioneering research by conducting joint international research necessary for the development of scientific research. By conducting joint international research overseas, domestic researchers can take the central role in international network, which seeks to build out infrastructure of joint international research or further strengthen joint international research. In addition, early-career researcher is required to participate in project members, which expects to foster researchers who can play leading roles within the international scientific area, and to maintain and develop the infrastructure of joint international research in medium- to long-term.

Since this funding system seeks to build out infrastructure of joint international research or further strengthen joint international research, the grant supports highly selected research projects by assessing not only the significance as scientific research of research initiative, but also assessing the effectiveness of the research plan conducted in overseas research institution, etc.

B) Funding target:

- A research plan must include the joint international research project conducted by domestic researchers with the researcher(s) who belongs to an overseas research institution (overseas joint researcher) .
  Domestic researchers are required to visit the “overseas research institution, etc.” which is the core of excellence of the overseas researcher(s) to implement research activities, and the research activities must be the core of the research plan. (*1)
- A research plan must presuppose the above in which Principal Investigator should mainly visit the “overseas research institution, etc.” to implement research activities.
- At least 3 (up to around 5) domestic researchers should be involved in the project (as Principal Investigator or Co-Investigator). Moreover, at least one early-career researcher (*2) should be involved in each project (as Principal Investigator or Co-Investigator). However, in case an early-career researcher applies as Principal Investigator, his/her project is eligible even when the project is conducted just by himself/herself or with one another early-career researcher.

(*1) About “visiting the “overseas research institution, etc.” to implement research activities”

The meaning is that going along him/herself is mandatory and essential element for the research plan. The examples are shown below.

a) A joint research which is expected to develop by the cooperation/collaboration with overseas researcher (or a group of researchers) such as utilizing the research facility of overseas research institution.

b) Field survey, observation, or resource acquisition which is jointly conducted with overseas researcher (or a

group of researchers) in the specific foreign region.

c) Other equivalent research

For above reason, **this grant does not target such as mere research meeting or convention. Although it is acceptable to involve the domestic research activities to the research plan within a necessary range, this funding system emphasize the research activities in overseas research institution and intensively supports such activities. Keep in mind this point both when developing an idea of research plan and implementing the research plan.**
**When formulating the research plan, applicants should give due attention to the feasibility of the project in view of the situation, etc. of the counterpart country of the joint international research.**

(*2) About the requirements of early-career researcher

This grant targets an applicant who is less than 8 years after the acquisition of his/her Ph.D. as of April 1, 2024 and an applicant who is deemed less than 8 years after acquisition of his/her Ph.D. by exempting the period(s) of prenatal/postpartum break or childcare leave.

Formerly, non-Ph.D. researchers of age 39 or under were eligible as early-career researchers under this research category. However, as the transition period for transitional measures under the "Early-Career Scientists" category enabling non-Ph.D. researchers of age 39 or under to apply for KAKENHI grants has ended, non-Ph.D. researchers of age 39 or under will no longer be eligible as early-career researchers under the Call for Proposals after Fiscal Year 2022.

C) Range of total budget: Up to 20 million yen

(In contrast to Fostering Joint International Research, "cost of replacement staff" is not permitted as the research expenditure.)

D) Research period: 3 to 6 years

E) Review Section and Review Method:

Review Section: Medium-sized Section

Review Method: Two-Stage Document Review

(Refer to Attached Table 2 "The Review Section Table for the Grants-in-Aid for Scientific Research -KAKENHI-", and II. Call for Proposals 3. Review Panels and Other Matters (2) Review Methods and Other Matters)

*In making your application, please make sure to check Attached Table 2 "The Review Section Table for the Grants-in-Aid for Scientific Research -KAKENHI-" and select one review section that is the most applicable to your research proposal according to the content of your research plan.

F) Application requirements, etc.

○ An applicant, whether as a Principal Investigator or Co-Investigator, may only propose or receive the grant of one project at the same time 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.

○ Early-career researcher should be participated in the project members from the view point of build-out of infrastructure or further strengthening of joint international research. For this reason, early-career researcher should be participated as either Principal Investigator or Co-Investigator.

< Points to be noted>

It is desirable to internationally publish the research achievements such as publication of papers written by international co-authorship, presentation in international conference, and so on.

G) About the Letter of Intent (LOI)

Principal Investigator should give concrete contents of his/her research plan, relate the roles to be assigned to them and obtain his/her/their full consent to prepare Letter of Intent. This Letter of Intent of established form, which is confirmed between Principal Investigator and overseas researchers, is required for the application. Furthermore, this letter will be used as a part of the Research Proposal Document for the review.

## 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 Applicants" for details) | Procedures to be Performed by the Research Institution (See "IV. Instructions for Administrative Staff of Research Institution" for details) |
|---|---|---|
| March 1 (Friday), 2024<br><br>Start of the Call for Proposals | | Procedures to be completed, if the need arises<br>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.)<br>*The issue of the ID and the Password takes about 2 weeks (max.).<br>2) Registration of the Researcher Information in e-Rad and other matters.<br>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.) |
| | 1) Preparing the Application<br>Investigators should access the Electronic Application System using the e-Rad ID and Password which have been provided by the research institution and preparing the application. | |
| | [Procedures to be completed, if the need arises]<br>2) Participation process of the Co-Investigator-to-be joining as a project member | [Procedures to be completed, if the need arises]<br>4) The researchers who belong to the Institutions give a consent to become the Co-Investigator. |
| | 3)Submission (Sending) of the Application Documents<br>The Principal Investigator should submit (send) the application documents to the research institution he/she belongs to, by the deadline decided the research institution. | 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".<br>・Submission of the "Checklist Pertaining to the Current Status" based on "Guidelines for Responding to Misconduct in Research"<br>*If both Checklists have been submitted separately after April 2023, there is no need for resubmission.<br>**Deadline for submission: May 9 (Thursday)** |
| **May 9 (Thursday), 2024 4:30 pm (JST)**<br><br>**Deadline for submission: (to be strictly observed)** | | 6) Submission (Sending) of the Application Documents |

Notes:

1. After the Principal Investigator submits (Sends) the application to the research institution (mentioned in "Procedures to be Performed by the Principal Investigator" 3), the research institution should submit (Send) to the JSPS the application by the deadline for the submission (mentioned in "Procedures to be Performed by the Research Institution" 6).
   Next, he/she should verify the section III. Instructions for Prospective Applicants 3. Preparation of the KAKENHI

Application Form (Research Proposal Document and Letter of Intent), 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 FY2023 should submit them in FY2024 format after April 1, 2024 onwards.

4. If the project members are organized with some Co-Investigators, the Principal Investigator should conduct the consent process to register the Co-Investigators through the electronic application system (mentioned in "Procedures to be Performed by the Principal Investigator" 2). And the Co-Investigators-to-be need to obtain a necessary consent to become a Co-Investigator from their research institutions, and so on (mentioned in "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 (Refer to III. Instructions for Prospective Applicants 3. Preparation of the KAKENHI Application Form (Research Proposal Document and Letter of Intent) .

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

The schedule below is as of March 1, 2024.

There may be changes in the plan including the timing of the provisional grant decision. When the changes occur, it will be announced on the JSPS website and through the research institutions.

| International Collaborative Research |
|---|
| May to August 2024：Review |
| Early September 2024：Provisional grant decision* ・Notification of review results |
| Middle September 2024：Disclosure of review results |
| Late September 2024：Formal application for grant delivery |
| Early November 2024：Official grant decision |

*The notification of review results of International Collaborative 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) Review Methods, and Other Matters

The review for International Collaborative Research is carried out by the Scientific Research Grant Committee of the Japan Society for the Promotion of Science (JSPS), and it is based on the Research Proposal Document, etc. The review takes place behind closed doors.

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

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

The details on “assessment rules” such as assessment criteria (Rules concerning the review and assessment for the Grants-in-Aid for Scientific Research, called “review and assessment rules” below) can be checked on the JSPS website: (URL：https://www.jsps.go.jp/j-grantsinaid/01_seido/03_shinsa/index.html)

(The “assessment rules” for FY2024 KAKENHI (Fund for the Promotion of Joint International Research (International Collaborative Research) will be posted on the JSPS website in late March 2024.)

Furthermore, the review is performed by each Medium-sized Section. Reviewers of 6 to 8 will conduct document reviews in two-stage. The panel reviews will not be conducted. (This is called a “Two-Stage Document Review”)

＊In March 2022, MEXT and JSPS announced the Review Section Table which will be applicable starting from the Call for Proposals for the Grants-in-Aid for Scientific Research -KAKENHI- for FY2023. Major points, etc. of the recent revision are as follows:

[Key points of the revision]

- The examples of related research content of the Basic Sections have been changed. (While maintaining the current classification of Basic, Medium-sized, and Broad review sections, the examples of related research content offered for the Basic Sections have been revised)

・Joint reviews will be conducted for several Basic Sections under Grant-in-Aid for Scientific Research (B). (For Grant-in-Aid for Scientific Research (B), joint reviews will be conducted by consolidating several Basic Sections for which the number of applications is notably small)

For details, please refer to the following report:

・Revisions, etc. to the Grants-in-Aid for Scientific Research-KAKENHI- "Review Section Table"
(March 9, 2022, Subdivision on Research Grant Screening Section of the Academic Deliberation, Science Division, Council for Science and Technology)
URL：https://www.mext.go.jp/a_menu/shinkou/hojyo/1385136_00004.htm

* In the review process, the reviewers can utilize, as necessary, the "researchmap" and the database of Grants-in-Aid for Scientific Research (KAKEN). (Refer to III. Instructions for Prospective Applicants　5. Registration of the Researcher Information in "researchmap")

### (3) Notification of the Review Results

1) JSPS will issue a notification to the PI and research institution via the electronic application system on whether the research project has been adopted or not, based on the results of the review.

2) To the PI whose proposal has not been adopted and who wish to request for disclosure the result of the review at the first stage of the review, JSPS is ready to disclose the approximate ranking per the Medium-sized Section, the score (average score), and the "standard-format opinion" via the electronic application system.

# III. Instructions for Prospective Applicants

## 1. Procedures to be Completed Prior to Application

**The following three requirements 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 (i) and (ii) 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 **a researcher can apply for and receive grants of no more than one project for this research category at the same time either as a Principal Investigator or a Co-Investigator.**

【Eligibility for KAKENHI application】

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

<Requirements>

a) **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.)

b) **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.)

c) **The applicant must not be a graduate student nor 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.)

(* 1): Here, the research institution must be such that designated according to the Article 2 of the "Rules for the Handling of Grants-in-Aid for Scientific Research" (issued by the MEXT).

(* 2): JSPS Fellows (DC) are deemed eligible for application, regardless of whether they actually meet all the requirements a) to c) in (i) above. However, they need to check with their research institutions about whether the research institutions meet the requirements for research institutions.

(Reference) Requirements that the research institution must meet

(Refer to IV. Instructions for Administrative Staff of Research Institution　2. Issues to Be Completed Beforehand by the "Research Institution")

< Requirements >

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

(ii) **The individual must not be categorized as ineligible for grant acquisition in the fiscal year covered by a call for proposals, as a penalty for his/her improper grant spending, fraudulent grant acquisition, or research misconduct using the KAKENHI or other Competitive Research Funds.**

<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 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 (KAKENHI) he/she must meet the eligibility requirements for KAKENHI application. (The definition of “young researcher” in this research category can be referred to III. Instructions for Prospective Applicants 3. Preparation of the KAKENHI Application Form (Research Proposal Document and Letter of Intent) The Participation of Early-Career Researcher to Project Members (Principal Investigator and Co-Investigator) in International Collaborative Research).

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)
URL: 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" (Revised on December 18, 2020, Agreement of the Liaison Meeting of Related Offices and Ministries on Competitive Research Funds)
URL: https://www.mext.go.jp/amenu/shinkou/torikumi/1385716_00001.htm

<Important Point 2>

If a JSPS Research Fellow (SPD, PD, RPD, or CPD) meets the application requirements set forth above at the research institution which he/she registers as host research institution, he/she can also apply for the following research categories other than the "Grant-in-Aid for JSPS Fellows," but only from the registered host research institution. Unlike applying for KAKENHI as PI, he/she may apply for any of these research categories so long as he/she takes part in a KAKENHI proposal as Co-I. In making applications, he/she can apply even if the proposed research period outlasts the tenure of his/her JSPS fellowship.

(1) Publicly Offered Research of Transformative Research Areas (A)
(2) Scientific Research (B/C)
(3) Challenging Research (Exploratory)
(4) Early-Career Scientists

(5) Fund for the Promotion of Joint International Research (Fostering Joint International Research) (Excluding CPD)

JSPS Fellows (DC) can apply for KAKENHI as Principal Investigators (PI) only for the Grant-in-Aid for JSPS Fellows and Fostering Joint International Research. JSPS Fellows (DC) can also participate in research projects under every research category as Co-Is, but only from the host research institutions. As JSPS Fellows (DC) are supposed to seek the acquisition of Ph.D. as doctoral students, their host researchers or PIs of said KAKENHI research projects and their affiliated institutions should take sufficient care, so that JSPS Fellows (DC) will not be burdened with excessive responsibilities in performing these research projects. The Researcher Number is required if JSPS Fellows (DC) apply for other research categories that they can apply for and receive in parallel with Grant-in-Aid for JSPS Fellows as PIs or Co-Is.

Please note that students (see Note), such as graduate students and other students, as well as JSPS International Research Fellows cannot apply for KAKENHI grants even if they are tasked with the job of conducting research activities at their affiliated research institutions or other research institutions.

(Note) The term "student" as defined here does not include such an individual who has a position to conduct research in his/her research institution as the main job (e.g., university teaching staff, researcher belonging to a company, etc.), and holds a student status at the same time.

<Important Point 3>

The PIs and the Co-Is constitute the "members of funded projects," as stipulated in the Law on the Improvement of the Administration of the Budget for Grants-in-Aid (1955, Law No. 179).

In an event that they have committed improper grant spending, fraudulent grant acquisition, research misconduct, etc. the eligibility for KAKENHI application will be suspended for a period of time specified by the rule.

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

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

**(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.

- ○ Give considerations so as to ensure that as many excellent researchers as possible can be supported with limited funding resources.
- ○ Give considerations so as to ensure that the number of applications does not become excessive in comparison with the review scheme of each research category.
- ○ The restrictions to be enforced are primarily directed to the applicant as Principal Investigator (PI) who bears

all responsibility for the implementation of the research project(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.

Restrictions on parallel grant application/receipt do apply to research categories under the current round of call for proposals. Accordingly, **the applicant should be well acquainted with the description the rules given below**, and the "Table of Restrictions on Parallel Grants Application/Receipt".

In case a particular research project falls under the concept of "unreasonable duplication" as put forward in the "Guidelines on the Proper Implementation of Competitive Research Funds" (Refer to I. Outline of the Grants-in-Aid for Scientific Research-KAKENHI- 5. "Guidelines on the Proper Implementation of Competitive Research Funds", etc.), 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 below points for the application in addition to referring to the attached Table 1 "Table of Restriction on Parallel Grant Application/Receipt".

1) You can propose or receive the grant of no more than one project for International Collaborative Research at the same time, either as a Principal Investigator or a Co-Investigator. (Refer to II. Call for Proposals　1. Research Categories for which a Call for Proposals is Organized)
However, neither a Principal Investigator nor a Co-Investigator of this research category (including Fostering Joint International Research (B) adopted before FY2022) who is currently conducting this research project may not apply for this research category newly.

2) If you are eligible to apply at multiple research institutions, you can apply from any of these research institutions. Even if you are a researcher who is eligible to apply at multiple research institutions and make applications from these respective research institutions at the same time, you are subject to restrictions on parallel grant application/receipt, as the application of the restrictions is based on the researcher (PI or Co-I).

3) If you have received the provisional grant decision of Specially Promoted Research or Scientific Research (S) (provisional grant decision is planned on early April) and you have conducted the formal application for grant delivery, the research project of this research category will not be reviewed.

4) The parallel submission of research proposals to this research category and Fostering Joint International Research is not permitted. For this reason, the researcher whose research proposal for Fostering Joint International Research (including Fostering Joint International Research (A) adopted before FY2022) has been

adopted cannot apply for this research category as a Principal Investigator but can participate in this research category as a Co-Investigator.

5) In some cases, 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.
Applicants should give careful attention on the point that if the researcher participates as a member of multiple projects and submits the research projects to JSPS, all the research projects applied will not be reviewed.
Applicants should conduct procedures to change the Project Members Lists of their continued research projects well in advance, as the acceptance or approval of such changes takes around one month.

6) 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" (Refer to I. Outline of the Grants-in-Aid for Scientific Research-KAKENHI- 5. "Guidelines on the Proper Implementation of Competitive Research Funding") mentioned on following guideline.

7) If you are awarded a JSPS Research Fellowship after you applied for the Grant-in-Aid for this research category and then your research proposal is also adopted, you will need to choose either of them.
JSPS Fellows (SPD, PD, RPD, or CPD) are not permitted to apply for grants under research categories subject to restrictions on parallel grant application/receipt during the tenure of their fellowships.
As such, 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 carefully against such possibility before submitting the research proposal document.
*JSPS Fellows (DC) may not apply for research categories as a Principal Investigator except for Grant-in-Aid for JSPS Fellows and Fostering Joint International Research.

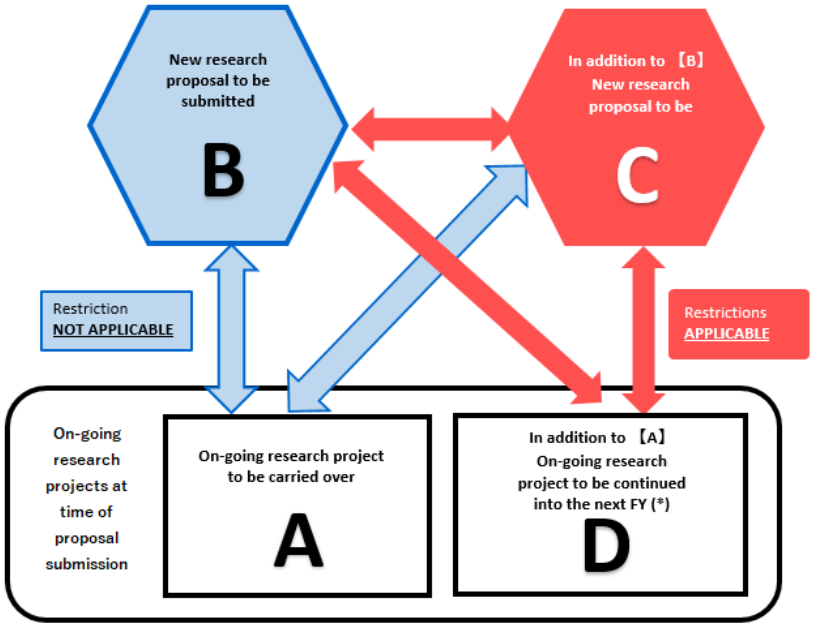
8) There are no restrictions on parallel research grant application/receipt between KAKENHI and other competitive research fund schemes. Nevertheless, please be fully aware of the content of "Elimination of Unreasonable Duplication and/or Excessive Overconcentration in the Grant Allocation" (Refer to I. Outline of the Grants-in-Aid for Scientific Research-KAKENHI- 5. "Guidelines on the Proper Implementation of Competitive Research Funding", etc.)

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

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

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

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




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

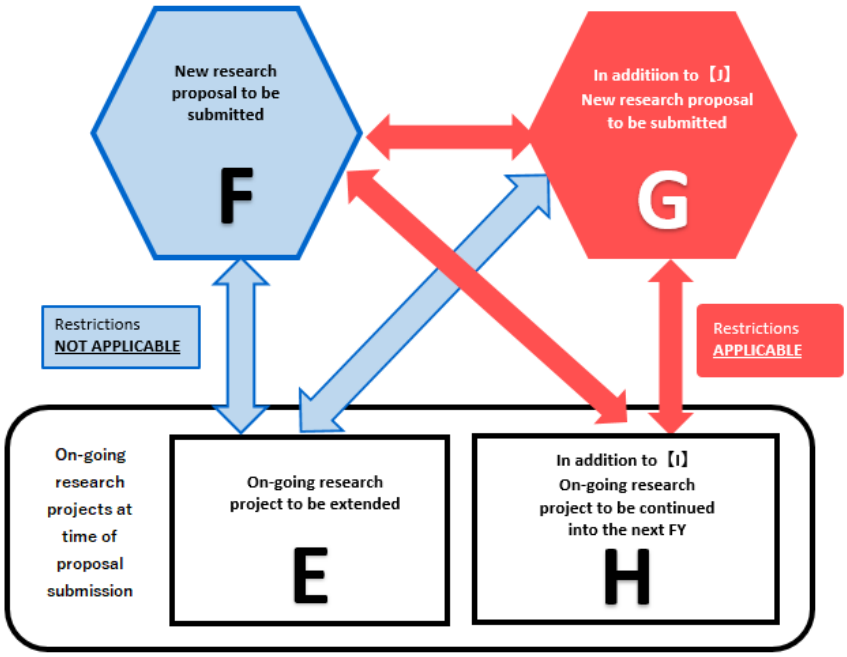
* Here, the same research project as A to be conducted in the fiscal year following the fiscal year in which it is to be carried over will fall under D. (For example, if a research project is an on-going project that will be continued into FY2024, the research project to be carried over will fall under A in Figure 2 during FY2023, and will fall under D in FY2024.)

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

1) When a PI of an on-going project of KAKENHI (Multi-year Fund) extends the research period in the final fiscal year (except the case with the interruption of the research due to maternity/childcare leave, research stay abroad, etc.), the restriction on parallel grant application/receipt does not apply between the on-going project and a new research proposal he/she intends to submit.

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

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




Whereas: “E” is an on-going research project in the final fiscal year of the research period, and the researcher intends to extend the research period (not including cases where researcher suspends the research for maternity/childcare leave, etc.) and “F” is a new research proposal to be submitted. In this case, the restriction on parallel grant application/receipt does not apply between E and F. However, if the researcher intends to submit a research proposal for a different research proposal “G” (in addition to F) for this call for proposals, the restriction on parallel grant application/receipt does not apply between E and G, but shall apply between F and G. Furthermore, if the researcher has an on-going research project “H” (other than E) which will be continued into the next fiscal year, restrictions on parallel grant application/receipt shall apply between F and H. Similarly, if the researcher intends to submit a research proposal for G, restrictions on parallel grant application/receipt shall also apply between G and H.

# Attached Table 1　Table of Restriction on Parallel Grant　Application/Receipt

## 1) Restriction on Parallel Grant Application/Receipt for the KAKENHI already called for and Fund for the Promotion of Joint International Research (International collaborative Research)

○Principal Investigator of the KAKENHI already called for (New Proposal*1/Continued) → International Collaborative Research

| Column A | | Column B | | International Collaborative Research | |
|---|---|---|---|---|---|
| | | | | New Proposal | |
| | | | | PI | Co-I |
| Specially Promoted Research | | New Proposal | PI | ■ | ■ |
| | | Continued | PI | ▲ | ▲ |
| Scientific Research (S) | | New Proposal | PI | ■ | |
| | | Continued | PI | ▲ | |
| Scientific Research (A) | General | New Proposal | PI | | |
| | | Continued | PI | | |
| Scientific Research (B) | General | New Proposal | PI | | |
| | | Continued | PI | | |
| | Generative Research Fields | Continued | PI | | |
| Scientific Research (C) | General | New Proposal | PI | | |
| | | Continued | PI | | |
| | Generative Research Fields | Continued | PI | | |
| Young Scientists(A) | | Continued | PI | ▲ | |
| Young Scientists(B) | | Continued | PI | ▲ | |
| Early-Career Scientists | | New Proposal | PI | □ | |
| | | Continued | PI | ▲ | |
| Challenging Research | Pioneering | New Proposal | PI | | |
| | | Continued | PI | | |
| | Exploratory | New Proposal | PI | | |
| | | Continued | PI | | |
| Research Activity Start-up | | New Proposal | PI | × | |
| | | Continued | PI | | |
| JSPS Fellows (JSPS Research Fellow) *2 | | Continued | PI | ▲ | |

○Co-Investigator of the KAKENHI already called for (New Proposal/Continued) → International Collaborative Research

| Column A | | Column B | | International Collaborative Research | |
|---|---|---|---|---|---|
| | | | | New Proposal | |
| | | | | PI | Co-I |
| Specially Promoted Research | | New Proposal | Co-I | | |
| | | Continued | Co-I | | |
| Scientific Research (S) | | New Proposal | Co-I | | |
| | | Continued | Co-I | | |
| Scientific Research (A) | General | New Proposal | Co-I | | |
| | | Continued | Co-I | | |
| Scientific Research (B) | General | New Proposal | Co-I | | |
| | | Continued | Co-I | | |
| | Generative Research Fields | Continued | Co-I | | |
| Scientific Research (C) | General | New Proposal | Co-I | | |
| | | Continued | Co-I | | |
| | Generative Research Fields | Continued | Co-I | | |
| Challenging Research | Pioneering | New Proposal | Co-I | | |
| | | Continued | Co-I | | |
| | Exploratory | New Proposal | Co-I | | |
| | | Continued | Co-I | | |
| Challenging Exploratory Research | | Continued | Co-I | | |

Blank cell: The researcher can apply for both research projects.

×: The researcher can only apply for one research project (in case he or she applied for a research project mentioned in column A, he or she cannot apply for a research project mentioned in column B).

▲: The researcher cannot apply for a research project mentioned in column B (He or she only implements the research of a continued research project mentioned in column A).

■: The researcher can apply for both research projects. However, in case both are adopted, he or she only implements the research of the research project in A.

□: The researcher can apply for both research projects. However, in case both are adopted, he or she only implements the research of the research project in B.

*1 A new research project mentioned in column A is related to the research project applied for the Grants-in-Aid for Scientific Research (FY2023).

*2 "Restriction on Parallel Grant Application/Receipt" does not apply to reseachers who withdraw and loose his/her status as a JSPS Fellows but still continue to use Grant-in-Aid for JSPS Fellows with eligibility of KAKENHI application.

## 2) Restriction on Parallel Grant Application/Receipt for Fund for the Promotion of Joint International Research /Fund for the Promotion of Joint International Research (International Collaborative Research)

○Fund for the Promotion of Joint International Research → International Collaborative Research

| Column A \ Column B | | | International Collaborative Research | |
|---|---|---|---|---|
| | | | New Proposal | |
| | | | PI | Co-I |
| International Leading Research | New Proposal | PI | | |
| | | Co-I | | |
| Fostering Joint International Research (Former Fostering Joint International Research (A)) | New Proposal (*) | PI | × | |
| | Continued | PI | ▲ | |
| International Collaborative Research (Former Fostering Joint International Research (B)) | New Proposal | PI | － | － |
| | | Co-I | － | － |
| | Continued | PI | － | － |
| | | Co-I | － | － |
| Home-Returning Researcher Development Research | Continued | PI | □ | |
| | | Co-I | | |

(*) In case you have applied for International Collaborative Research as a Principal Investigator, you cannot apply for Fostering Joint International Research to be called for proposals scheduled on July 2024.

Blank cell: The researcher can apply for both research projects.

－: A researcher can only apply for one research project (in case he or she applied for a research project mentioned in column A, he or she cannot apply for a research project mentioned in column B).

×: A researcher can only apply for one research project (in case he/she applied for a research project mentioned in column A, he/she cannot apply for a research project mentioned in column B).

▲: A researcher cannot apply for a research project mentioned in column B (He/she only implements the research of a continued research project mentioned in column A).

□: A researcher can apply for both research projects. However, in case both are adopted, he or she only implements the research of the research project in B.

## 3) Restriction on Parallel Grant Application/Receipt Scientific Research on Innovative Areas / Transformative Research Areas and Fund for the Promotion of Joint International Research (International Collaborative Research)

○Scientific Research on Innovative Areas (New Proposal/Continued) → International Collaborative Research

| Column A | | | | Column B: International Collaborative Research | |
|---|---|---|---|---|---|
| | | | | New Proposal | |
| | | | | PI | Co-I |
| Scientific Research on Innovative Areas (Research in a proposed research area) | Administrative group (*) | Continued | PI | | |
| | Planned research | Continued | PI, Co-I | | |
| | Publicly offered research | New Proposal | PI | | |
| | | Continued | PI | | |

○Transformative Research Areas (New Proposal) → International Collaborative Research

| Column A | | | | Column B: International Collaborative Research | |
|---|---|---|---|---|---|
| | | | | New Proposal | |
| | | | | PI | Co-I |
| Transformative Research Areas (A) | Administrative group | New Proposal | PI | | |
| | | Continued | PI | | |
| | Planned research | New Proposal | PI, Co-I | | |
| | | Continued | PI, Co-I | | |
| Transformative Research Areas (B) | Administrative group | New Proposal | PI | | |
| | | Continued | PI | | |
| | Planned research | New Proposal | PI, Co-I | | |
| | | Continued | PI, Co-I | | |

Blank cell: The researcher can apply for both research projects.

×: The researcher can only apply for one research project (in case he or she applied for a research project mentioned in column A, he or she cannot apply for a research project mentioned in column B).

▲: The researcher cannot apply for a research project mentioned in column B (He or she only implements the research of a continued research project mentioned in column A).

☐: The researcher can apply for both research projects. However, in case both are adopted, he or she only implements the research of the research project in B.

## 3. Preparation of the KAKENHI Application Form (Research Proposal Document and Letter of Intent)

**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 PI has to complete the relevant Research Proposal Document and Letter of Intent from overseas researcher. 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 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 to the Research Proposal Document, applicant should submit the Letter of Intent from overseas researcher.

Preparation and submission of the KAKENHI Research Proposal Document and Letter of Intent from overseas researcher should follow the procedures detailed below.

### (1) Revision of the Research Proposal Document

In the process of the Reform of the KAKENHI Review System, Research Proposal Document has been reviewed since FY 2018 call (announced in September 2017). The revision to the FY2019 call (announced in September 2018) includes the instructions on describing achievements in the column of research achievements.

In International Collaborative Research, several changes in the Research Proposal Document such as follows have been made from the FY2019 call for proposals.

In preparing the research proposal document, read carefully the Application Procedures for Grants-in-Aid for Scientific Research-KAKENHI- (Supplement) "Forms/Procedures for Preparing and Entering a Research Proposal Document".

- Based on the purpose of this research category, revisions have been made on the structure of Research Proposal Document. Also, the contents of description an applicant should provide in each column about his/her concrete research plan for overseas joint international research project including its significance and necessity have been specified.
- The "Research Achievements of the Principal Investigator (PI) and Co-Investigator(s) (Co-I(s))" column in the Research Proposal Document is to be changed to the "Applicant's Ability to Conduct the Research and the Research Environment" column in accordance with the rating elements.

(Reference)

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

(Problem recognition, etc.)

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

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

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

In addition, it has been made clear that, starting from the FY2024 Call for Proposals, the applicant can include any international efforts related to his/her research plan (such as his/her records of joint international research and research history in overseas institutions) as necessary in the Applicant's Ability to Conduct the Research and the Research Environment column of the Research Proposal Document form, from the perspective of encouraging researchers to conduct international research activities.

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

**(2) Preparation of KAKENHI Research Proposal Document and Letter of Intent**

For the preparation of the KAKENHI Research Proposal Document and Letter of Intent, the applicant must

first access the Electronic Application System using his/her e-Rad ID and Password.

a) On the Research Proposal Document

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

| | |
|---|---|
| Items to be entered in the Website: | Items to be directly entered by the PI (applicant) on the website of the KAKENHI Electronic Application System |
| Forms to be uploaded: | A part containing such entries as "Summary, Significance and Necessity of the Joint International Research, etc." ,"Research Objectives, Research Method of the Joint International Research, etc." and other items to be prepared by downloading the form from the "Grants-in-Aid for Scientific Research-KAKENHI-" page within the JSPS website, and by uploading the filled form to the KAKENHI Electronic Application System so as to compile a PDF file of the research proposal document. **(Paper-based applications will not be accepted.)** (URL: https://www.jsps.go.jp/english/e-grants/grants09_itn_collab.html) |

| Research category Application Section | Research Proposal Document | | |
|---|---|---|---|
| | Items to be entered in the Website (First part) | Forms to be uploaded as an attached file (File ID) | Items to be entered in the Website (Second part) |
| International Collaborative Research | To be entered in the electronic application system (Title of research project, Fundamental data on the research project such as total budget, Data on the project members, etc.) | S-63-1 | To be entered in the electronic application system (Research expenses, Necessities, status of application and acquisition of research grants, etc.) |

b) About the Letter of Intent

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. You can download the form from JSPS website.

(URL: https://www.jsps.go.jp/english/e-grants/grants09_itn_collab.html)

Applicant should fill in the necessary information such as Outline of the Research Project, request the overseas joint researcher (the principal researchers of the group in case a group of researchers) to confirm the contents and give a signature. 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.

Applicants are requested to upload just one of the letters written by the main overseas joint researchers in case she/he receives several letters.

○ Uploaded Letter of Intent will be used in review process as a part of the Research Proposal Document. Please

inform a researcher to whom you request to write Letter of Intent the following: Personal information of overseas Co-Investigator given in Letter of Intent and Research Proposal Document will be used for administrative tasks of KAKENHI grants;

The above includes providing personal information to external contractor(s) in charge of the electronic processing and management of KAKENHI data.

You can also refer to next page (3) Electronic Submission of the Research Proposal Document, 3).

○ Until the both Research Proposal Document and Letter of Intent have been uploaded, applicant cannot submit (send) them to his/her research institution.

**(3) Electronic Submission of the Research Proposal Document**

1) An applicant should prepare his/her Research Proposal Document (PDF file) by entering the "Items to be entered in the Website" and by uploading the separately prepared "Forms to be uploaded" to the electronic application system, following the instructions in the "FY2024 Procedures for Preparing and Entering a Research Proposal Document for "Fund for the Promotion of Joint International Research (International Collaborative Research)" and "FY2024 Procedures for Preparing and Entering a Research Proposal Document (Items to be entered in the Website) (Fund for the Promotion of Joint International Research (International Collaborative Research)".

In addition, applicant should upload the Letter of Intent converted to PDF file to the electronic application system.

Both procedures and Letter of Intent can be downloaded at

URL：https://www.jsps.go.jp/english/e-grants/35_kokusai/04_renkei/koubo.html

2) The Research Proposal Documents and Letters of Intent are collected and submitted to JSPS by the research institution to which the PIs (applicant) belong. Therefore, the applying PI **should submit his/her Research Proposal Document to the administrative section of his/her research institution by the deadline set by the institution. (It is not allowed to submit the Research Proposal Document directly to JSPS.)**

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

(Refer to IV. Instructions for Administrative Staff of Research Institution　4. Submission and Other Matters of the Research Proposal Document (Preparing the Research Proposal Document and Letter of Intent (LOI))

.

3) 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.

Researchers and their affiliated research institutions are requested to carry out the application procedures, including 2) and 3), with full understanding of the information handling (utilization, provision, and disclosure).

## (4) Important Checkpoints of the Research Proposal Document

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

### 1. Qualification as a KAKENHI project

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

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

### 2. Eligibility of the Project Members

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

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

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

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

**(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.**

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

・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 for the detailed information such as operating environments, operating methods, and so on.
  URL: https://www-shinsei.jsps.go.jp/kaken/topkakenhi/shinsei_ka.html
* 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 (PD, RPD, CPD or DC) who are *not* registered as eligible for KAKENHI application in their host her research institution)

**【The Participation of Early-Career Researcher to Project Members (Principal Investigator and Co-Investigator) in International Collaborative Research】**

Since this research category seeks to foster researchers who can play leading roles within the international scientific area and lead to maintain and develop the infrastructure of joint international research in medium- to long-term, **participation of early-career researcher to project members (Principal Investigator and Co-Investigator) is required**.

**< Eligibility of Early-Career Researcher >**

(1) **An applicant who is less than 8 years after the acquisition of his/her Ph.D. as of April 1, 2024**
(A researcher who acquired Ph.D. between April 2, 2016 and April 1, 2024.) Those individuals who are in the prospect of acquiring Ph. D. at the time of application are excluded.

(2) **An applicant who is deemed less than 8 years after acquisition of his/her Ph.D. by exempting as of April 1, 2024(*) the period(s) of childcare leave etc. (prenatal/postpartum break, childcare leave)**.

(*) Calculate the sum total of the leave periods, round up the total period to the year unit and then subtract it from the number of years after Ph.D. acquisition

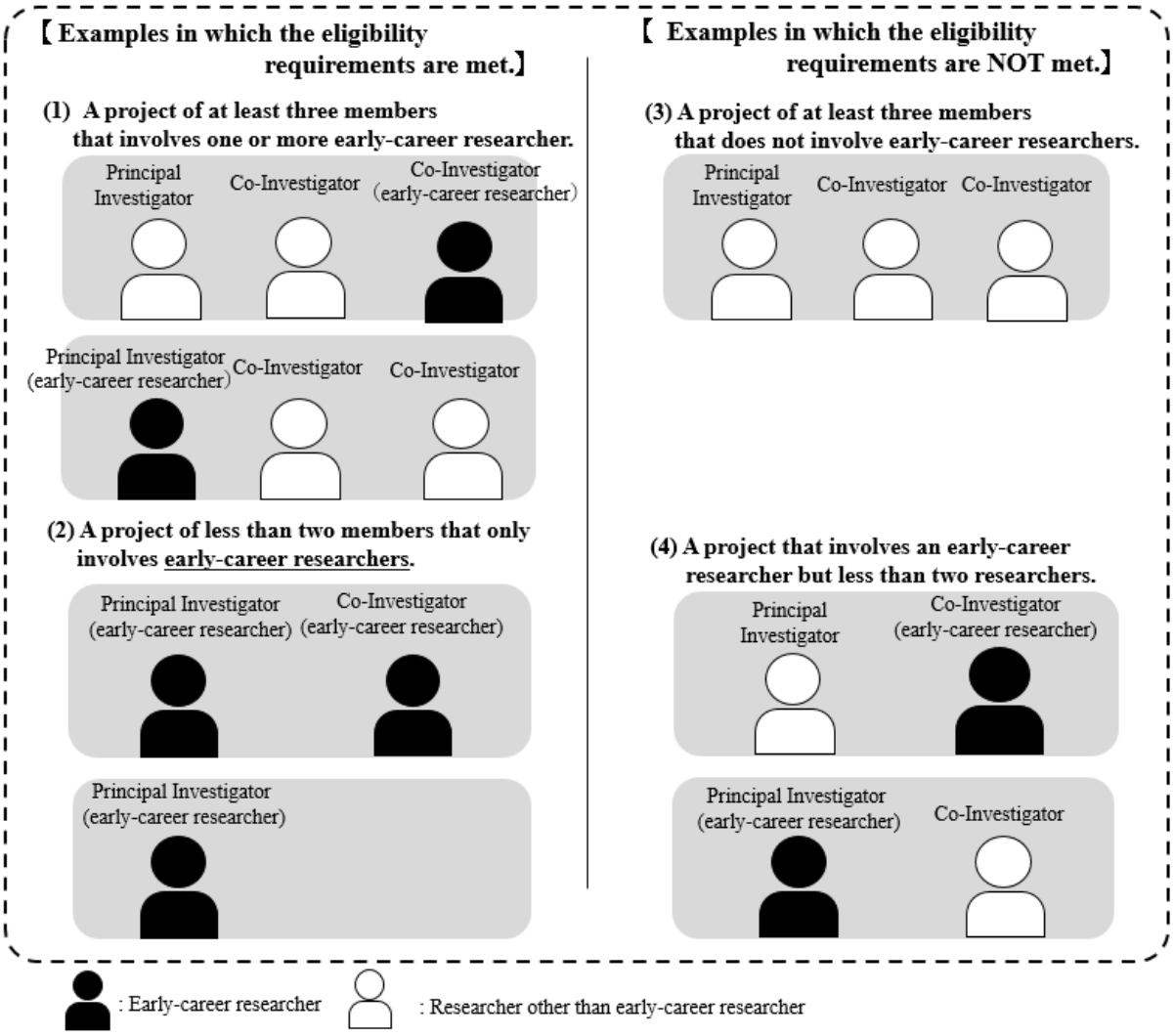
(Example: If the applicant has taken 6-month childcare leave three times, the years to be subtracted will be 2 years (1 year and 6 months → 2 years))

If an applicant participates in the research project as an Early-Career Researcher, he/she must register the "Date of Ph.D. Acquisition" in the e-Rad system at the time of proposal submission as the Principal Investigator or consent as a Co-Investigator. Since the registration to the e-Rad system cannot be made by the applicant him/herself, the applicant should request the administrative section of his/her affiliated research institution to register the Date of Ph.D. Acquisition in the e-Rad system in time for the proposal submission. If the applicant has

more than one Ph.D. degree, enter the first acquisition date.

In addition, please also note the below points for organizing project members.

- **At least 3 domestic researchers** should be involved in the project members (Principal Investigator and Co-Investigator) in principle **including at least one early-career researcher** (as a Principal Investigator or a Co-Investigator).
- **In case the project members (Principal Investigator and Co-Investigator) consist only of early-career researchers, it is eligible to organize project members consist of 2 or less early-career 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) can be covered by the direct expense.**

* If any of the expenditure categories (equipment costs, travel expenses, or personnel cost/honoraria) exceeds 90% of the total yearly expenditure in any 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, International Collaborative Research (including Fostering Joint International Research (B) before name change), Home-Returning Researcher Development Research (limited to those who belongs to the domestic research institutions), Special Purposes.

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

Encouragement of Scientists, Publication of Scientific Research Results, JSPS Fellows, Transformative Research Areas (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 (including Fostering Joint International Research (A) before name change). As for the research category of Fostering Joint International Research (including the Joint International Research (A) before name change) it is possible to budget the cost for hiring replacements.

○ As for the details of the expenses covered by the buyout system and matters to be done by the research institution

refer to the following. "Amendment Enabling Direct Expense of Competitive Research Funds to Cover the Costs of Duties Other Than Research (Introduction of Buyout System)" (Oct 9, 2020, Agreement among Research Promotion Bureau, Science and Technology Policy Bureau, Research and Development Bureau and Higher Education Bureau)

URL: 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) The following kinds of spending cannot be covered by KAKENHI

A. Costs associated with buildings and other facilities (excluding expenditure for installations necessary for installation of research equipment purchased by the KAKENHI direct expense).
B. Expenditures for measures to deal with accidents or disasters that occurred during the implementation of funded project
C. Personnel cost/Honoraria for the PI or Co-I(s)
D. Expenditures other than those mentioned on the above A-C 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) No mistakes in the format, etc. of the Research Proposal

1) No garbled characters and so on

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

2) Verification of the Application Forms

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

are inconformity with prescribed format.

| | Number of page(s) of Form | | | | | Total Number of Pages |
|---|---|---|---|---|---|---|
| | Summary, Significance and Necessity of the Joint International Research, etc. | Research Objectives, Research Method of the Joint International Research, etc. | Role of Overseas Joint Researchers and the state of preparation | Applicant's Ability to Conduct the Research and the Research Environment | Issues Relevant to Human Right Protection and Legal Compliance | |
| **Correct Number of Pages** | **3** | **3** | **2** | **2** | **1** | **1 1** |
| Incorrect Number Case 1 | 3 | 2 | 2 | 2 | 1 | 1 0 |
| Incorrect Number Case 2 | 2 | 3 | 3 | 2 | 1 | 1 1 |

Note: Forms for Research Proposal Document are as follows. (Refer to III. Instructions for Prospective Applicants 3. Preparation of the KAKENHI Application Form (Research Proposal Document and Letter of Intent (2) Preparation of KAKENHI Research Proposal Document and Letter of Intent)
Make sure to confirm that overseas researchers participating in joint research (capable of assuming responsibility in the research plan) have given their signatures to the Letter of Intent.

## 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 FY2024 Grants-in-Aid for Scientific Research, and **upon the formal application for a grant delivery, it shall be confirmed through the electronic application system whether they will have taken the research ethics education coursework, etc.**

If a PI 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

(i) 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;

(ii) 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 that he/she has done, 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" (URL: 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. Participation in the KAKENHI Peer-review Process

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 participation 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. 153,000 entries as of FY2023 and has utilized it so as to select the fair and excellent reviewers. In order to keep the information in this Database updated at all times, JSPS makes a request every year to update the registered information through your affiliated research institutions. Kindly cooperate in updating the information in accordance with the Spending Rules for researchers (supplementary conditions or funding conditions).

# IV. Instructions Administrative Staff of Research Institution

## 1. Sharing the Purpose and Aim of the KAKENHI System

The KAKENHI provides a financial support for the creative and pioneering researches based on the original ideas of researchers. Review of the submitted research proposals is conducted by the peer review process, in which researchers selected from their own community engage themselves in the assessment and reviewing of each research proposals on the basis of its scientific merit. The KAKENHI review process is based on the cooperation of more than 8,000 reviewers. (Refer to II. Call for Proposals 3. Review Panels and Other Matters (1) Concerning KAKENHI Review)

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

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

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

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

In order to apply for KAKENHI, a researcher needs to belong to a "Research Institution".

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

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

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

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

Moreover, researchers who belong to such institutions should consider that, in order to conduct research activities using KAKENHI, **the research institution should meet the requirements mentioned below**.

**＜Requirements＞**

**(i) The research institution must authorize the research project for which KAKENHI is granted, as its proper activity.**

**(ii) The research institution must take responsibility for management and accounting of the KAKENHI delivered to its researcher staffs.**

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

Researchers who intend to apply for KAKENHI should meet the requirements (Refer to III. Instructions for Prospective Applicants 1. Procedures to be Completed Prior to Application (1) Ascertainment of the Eligibility for KAKENHI Application) and must have eligibility for KAKENHI applications. Therefore, they should sufficiently verify these requirements with the research institution. (Refer to III. Instructions for Prospective Applicants 1. Procedures to be Completed Prior to Application)

Please also check the important points regarding eligibility described in the section.

### (3) Registration of the Researcher Information and Confirmation ID and Password in the e-Rad System

For the researcher to apply for KAKENHI as PI or Co-I, he or she must be registered in e-Rad as a researcher who is qualified to apply for KAKENHI in the researcher's data, and access the Electronic Application System using their e-Rad ID and Password to perform procedures.

Regarding the registration (update) of the researcher information as well as the provision of an ID and a Password for the researcher, the administrative staff in the research institution to which the researcher belongs should perform the following procedures using e-Rad. (For specific procedures, please refer to the "Manual for Research Institutions" (for Research Institution Office Representatives and for Research Institution Office Workers: the section of "Procedures for Researchers.")

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

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

It may take up to approximately two weeks for the "ID and Password for use of the research institution" to arrive

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

Notes:

*1. Please refer to "How to Apply for the Registration on Research Institutions" (URL: https://www.e-rad.go.jp/organ/entry.html) on the e-Rad website on downloading an application form for the ID and password for e-Rad.

*2. Research institutions that already obtained an ID and a password for e-Rad issued do not need to obtain it again.

*3. It is not necessary to obtain an ID and a password for e-Rad for each research category of the KAKENHI.

ii) After obtaining an ID and a Password for use of the research institution, the administrative staff in the research institution should check whether there are researchers without an e-Rad ID and Password and provide an ID and a Password to a researcher who is planning to apply as a Principal Investigator and a Co-Investigator but does not have an ID and a Password. The ID and password for each researcher is issued through registration of the researcher information in e-Rad.

*1. When providing the login ID and password, research institutions must make it known to researchers that they must strictly protect the login ID and password in order to prevent them from being disclosed to others.

*2. Once the ID and the password for the researcher have been provided, they can be used even if the research institution changes.

*3. Please be sure to obtain and use the latest version of the Operation Manual.

iii) The administrative staff should register (update) the researcher who is planning to apply as a Principal Investigator and a Co-Investigator as the one who is qualified to apply for KAKENHI in the researcher's data. If there is any item, such as the affiliation, the position, or others, that needs to be corrected, even though he or she has already been included in the researcher list of the research institution, it should be duly corrected.

Moreover, concerning the registration of the researcher information in e-Rad, there is no registration period (deadline). Therefore, registration is possible at any time.

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

*Participation of Early-Career researchers in project members (as Principal Investigator or Co-Investigator)
This research category aims to foster researchers who can play leading roles within the international scientific area, and to maintain and develop the infrastructure of joint international research in medium- to long-term. Accordingly, early-career researchers are required to participate in project members (as Principal Investigator or Co-Investigator). (Refer to II. Call for Proposals 1. Research Categories for which a Call for Proposals is Organized, III. Instructions for Prospective Applicants 3. Preparation of the KAKENHI Application Form (Research Proposal Document and Letter of Intent))

<Eligibility of Early-Career Researchers>

**(1) An applicant who is less than 8 years after the acquisition of his/her Ph.D. as of April 1, 2024. (A researcher who acquired Ph.D. between April 2, 2016 and April 1, 2024)**

**(2) An applicant who is deemed less than 8 years after acquisition of his/her Ph.D. as of April 1, 2024 by exempting (*) the period(s) of childcare leave, etc. (prenatal/postpartum break, childcare leave).**

**(*) Calculate the sum total of the leave periods, round up the total period to the fiscal year unit and then subtract it from the number of years after Ph.D. acquisition.**
**(Example: If the applicant has taken 6-month childcare leave three times, the years to be subtracted will be 2 years (1 year and 6 months → 2 years).)**

**An applicant must register the "Date of Ph.D. Acquisition" in the e-Rad system at the time of proposal submission as the Principal Investigator or consent as a Co-Investigator.**

Since the registration to the e-Rad system cannot be made by the applicant him/herself, the applicant should request the administrative section of his/her research institution to register the Date of Ph.D. Acquisition in the e-Rad system in time for the proposal submission. If the applicant has more than one Ph.D. degree, enter the first acquisition date.

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

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

Therefore, "those research institutions which Principal Investigators and Co-Investigators applying for KAKENHI in FY2024 belong to" and "those research institutions which Principal Investigators and Co-Investigators continuing research projects using KAKENHI are scheduled to belong to in FY2024" **must submit in accordance with the procedure and forms posted on the MEXT website the "Self-Assessment Checklist on the Improvement of the System" to the Office of Competitive Research Funding Administration, Research Environment Division, Science and Technology Policy Bureau of the MEXT Before May 9, 2024 (Thursday) via e-Rad**.

If the "Self-Assessment Checklist on the Improvement of the System" has already been submitted in April 2023 or later, it is not necessary to submit it again.

For details, refer to the website: URL:https://www.mext.go.jp/a_menu/kansa/houkoku/1324571.htm

If research institutions which have not turned in the "Self-Assessment Checklist on the Improvement of the System"

since April 2023 **hand in the said checklist on and after April 1, 2024, please submit it using the form for FY2024**.

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

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

< Inquiries >

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

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

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

e-mail: kenkyuhi@mext.go.jp

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

(Concerning the research institute e-Rad registration)

Helpdesk of the Cross-ministerial Research and Development management system (e-Rad) of the MEXT

Telephone: 0570-057-060 (Navi Dial)

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

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

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

Monday to Sunday 0:00 - 24:00 (in operation 24 hours a day, 365 days a year)
However, even during the above-mentioned time period, it may happen that the operation of e-Rad is disrupted or suspended, when maintenance and inspection is being carried out. If the operation is scheduled to be disrupted or suspended, this will be announced beforehand on the portal site.

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

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

Therefore "those research institutions which the Principal Investigators and Co-investigators applying for KAKENHI in FY2024 belong to" and "those research institutions which Principal Investigators and Co-Investigators continuing research projects using KAKENHI are scheduled to belong to in FY2024" **must submit in accordance with the procedure and forms posted on MEXT the "Checklist on the Research Misconduct" to the Office for Research Integrity Promotion, Research Environment Division, Science and Technology Policy Bureau of MEXT by May 10, 2024 (Friday) via e-Rad**.

For details, refer to the website:

URL: https://www.mext.go.jp/a_menu/jinzai/fusei/1420301_00003.html

If the "Checklist on the Research Misconduct" has already been submitted in April 2023 or later it is not necessary to submit it again.

If research institutions which have not turned in the "**the "Checklist on the Research Misconduct" since April 2023 hand in the said checklist on and after April 1, 2024, please submit it using the form for FY2024**.

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

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

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

< Inquiries >

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

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

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

Telephone: 03-6734-3874

email: jinken@mext.go.jp

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

(Concerning the research institute e-Rad registration)

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

Telephone: 0570-057-060 (Navi Dial)

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

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

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

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

### (6) Implementation of a Research Ethics Education Course based on the "Guidelines on Research Misconduct"

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

- Either to read through and learn the teaching materials by oneself concerning the research ethics education coursework such as "For the Sound Development of Science -The Attitude of a Conscientious Scientist-" (JSPS Editing Committee of "For the Sound Development of Science"), the "e-Learning Course on Research Ethics (eL CoRE)," the "APRIN e-learning program (eAPRIN)," etc., or to attend a lecture on research ethics

conducted by research institutions based on the “Guidelines on Research Misconduct.”

・ To understand thoroughly and to exercise the proper research practices in conducting their research, from amongst the contents of both the Statement “Code of Conduct for Scientists - Revised Version -” by the Science Council of Japan and the booklet “For the Sound Development of Science - The Attitude of a Conscientious Scientist -” issued by JSPS.

In case that the PI intends to add a new Co-I to the continued project in FY2024, the PI has to obtain a consent to become a Co-I from the Co-I-to-be via the electronic application system in advance. In this case, the Co-I-to-be has to complete the followings prior to the formal application for grant delivery and report to the PI what he/she has done. (Or, in case the grant has been already delivered, he/she has to do the followings by the time the “application for approval of change of the Co-Investigator” is submitted by the PI to JSPS.).

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

### (7) On the Submission of the Report on the Research Achievements

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

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

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

### (8) Obtaining Sufficient Knowledge about the Contents of the Application Procedures

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

### (9) Ensuring Research Integrity Among Research Institutions

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

protect the values that constitute the basis of research environment while encouraging necessary global collaboration and international exchanges.

Therefore, it is vital for universities and research institutions, etc. to observe the "Policy on Measures to Ensure Research Integrity Against New Risks as a Consequence of the Globalization and Openness of Research Activities (April 27, 2021, Decision of Council for Science, Technology and Innovation)" and formulate relevant rules and systems to manage conflict of interests and conflict of responsibilities, etc., and to autonomously secure the soundness and fairness of research (research integrity) among researchers and at universities and research institutions, etc. From such perspective, MEXT and JSPS check whether reasonable efforts can be secured while eliminating unreasonable duplication and excessive concentration of competitive research funds and ensuring transparency of research activities. In addition, MEXT and JSPS may make inquiries to affiliated institutions, as necessary, on the status of formulation of rules and status of identification and management of information as affiliated institution.

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

## 3. Issues that Need to Be Verified When Compiling the Application Forms (Preparing the Research Proposal Document and Letter of Intent (LOI))

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

### (1) Ascertainment of the Eligibility for KAKENHI Application

**It should be verified whether the Principal Investigator and the Co-Investigator(s) listed in the Research Proposal Document are researchers who meet the requirements that are stipulated in the Application Procedures (Refer to III. Instructions for Prospective Applicants 1. Procedures to be Completed Prior to Application), and also whether the researcher information is registered in e-Rad as "Eligible to Apply for KAKENHI".**

Moreover, it should be verified certainly that they must not be categorized as ineligible for grant acquisition in FY2023 in KAKENHI and other competitive research funds, as a penalty for their improper grant spending, fraudulent grant acquisition, or research misconduct.

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

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

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

### (3) Verification of the Principal Investigator

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

### (4) The Process of the Participation of Co-Investigator in Project Members

A research institution should conduct the process such as giving a consent with regard to the researcher who belongs to it becoming a Co-Investigator via the electronic application system. When the information on the Co-Investigator-to-be is presented to the research institution to which the Co-Investigator-to-be belongs via the electronic application system after the researcher who was requested to become a Co-Investigator from the Principal Investigator gave a consent to do so via the electronic application system, then the research institution need to give a consent to do so, etc. as well.

Since the Principal Investigator cannot submit (send) the Research Proposal Document to his/her research institution until the Co-Investigators-to-be's research institution gives a consent to do so, etc., the research institution should proceed with the consent process in time for the deadline of the submission.

* Please refer to the KAKENHI Electronic Application System Operation Manual
(URL: https://www-shinsei.jsps.go.jp/kaken/topkakenhi/shinsei_ka.html)
for the detailed information such as operating environment, operating method, and so on

### (5) Verification of the Application Forms

It should be verified whether the application format is in conformity with the prescribed format.

As for the forms to be uploaded, in particular, verify not only the total number of pages but also the numbers of pages instructed for each column is met. (III. Instructions for Prospective Applicants 3. Preparation of the KAKENHI Application Form (Research Proposal Document and Letter of Intent) (4) Important Checkpoints of the Research Proposal Document)

## 4. Submission and Other Matters of the Research Proposal Document (Preparing the Research Proposal Document and Letter of Intent (LOI))

(1) The research institution should access the "Electronic Application System", using the ID and the password for e-Rad, obtain the information of the Research Proposal Document (PDF files) that the Principal Investigators prepared, and verify their contents and other matters.

(2) The research institution should perform the "approval" process on all the Research Proposal Document (PDF files) that has no mistakes in their contents. (Completed to submit the Research Proposal Document (PDF files) to JSPS.) **Only the Research Proposal Document whose application status has become "Received by JSPS" by the due date of submission is deemed as having been submitted to JSPS.**

(3) **The research institution can, at any time prior to the deadline for submission, draw back the Research Proposal Document (PDF file) that it has already submitted to JSPS, and correct the content as necessary**

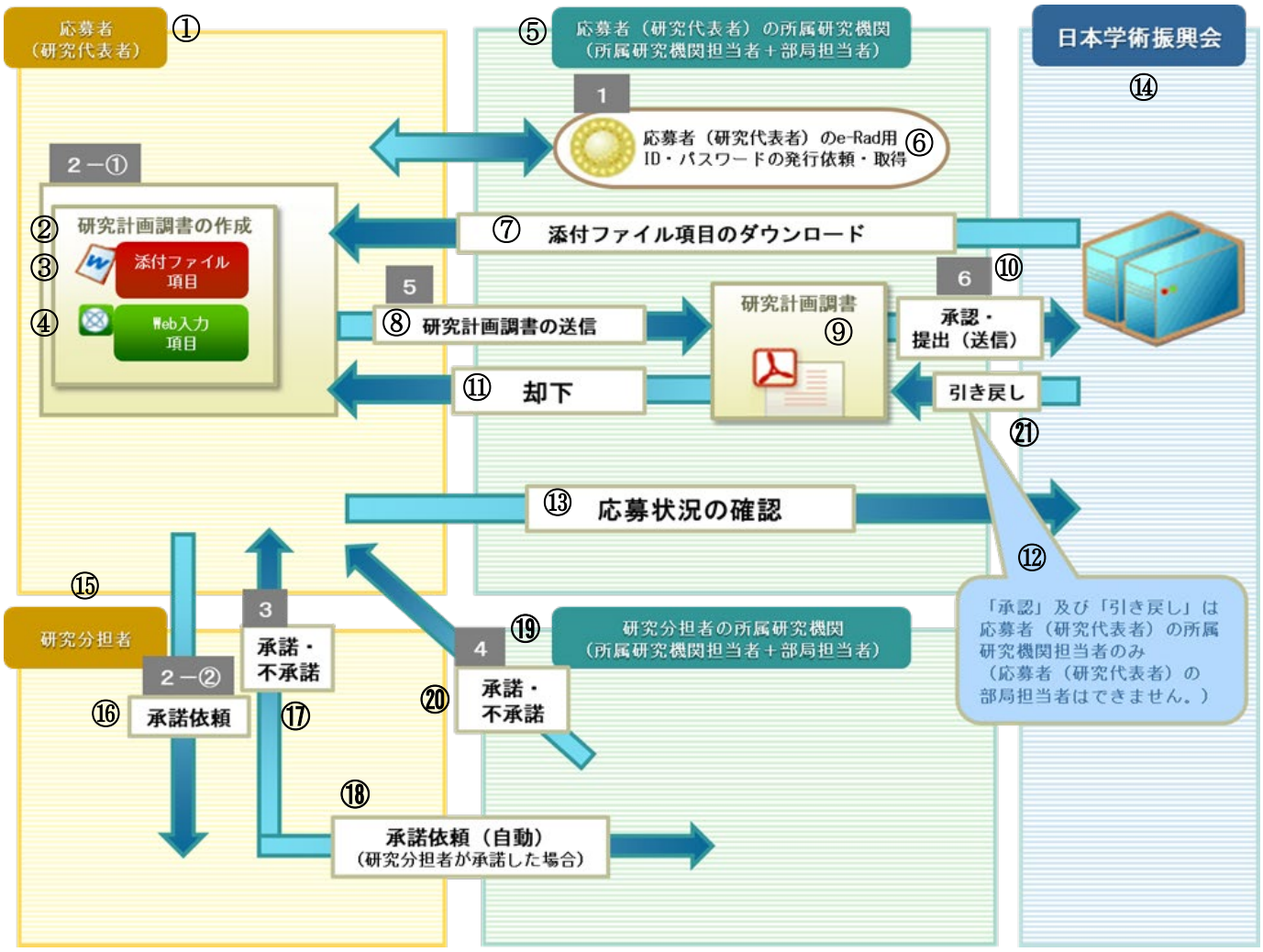
**and resubmit it. However, please do not draw it back on the due date of submission because resubmission may not be completed by the deadline due to concentration of access.**

(4) After the due date of submission to JSPS, no further corrections or modifications can be made to the Research Proposal Document and Letter of Intent (PDF file) for which the research institution has already performed the "approval" process.

**[The deadline for the submission of the Research Proposal Document is]**
**May 9, 2024 (Thursday), 4:30 pm (This deadline should be strictly observed.)**
**Note 1: Research Proposal Document that is submitted (sent) after this deadline will not be accepted for any reason. Therefore, the documents should be submitted (sent) well in advance.**
**Note 2: After the deadline above, it is not possible to draw back or to re-submit them.**

(5) handling and administration of them should be done carefully when carrying out the application procedures. Moreover, an outline of the procedures for electronic application can be found below. However, for details on the operating environment, procedure, etc. of the "Electronic Application System", please refer to the "Operation Manual" as shown below.
URL: https://www-shinsei.jsps.go.jp/kaken/topkakenhi/shinsei_ka.html

# Outline of the Electronic Application Procedures




① Applicant (Principal Investigator)
② Preparation of Research Proposal Document
③ Forms to be uploaded
④ Items to be entered in the website
⑤ The research institution to which the applicant (Principal Investigator) belongs
(Administrative staff in the research institution + Administrative staff in the department)
⑥ Request for issue and acquisition of the applicant's (Principal Investigators') ID and password for e-Rad
⑦ Downloading of the forms to be uploaded and the Letter of Intent
⑧ Sending the Research Proposal Document
⑨ Research Proposal Document
⑩ Approval
⑪ Rejection
⑫ Only the administrative staff in the research institution to which the applicant (Principal Investigator) belongs
(The administrative staff in the department of the applicant (Principal Investigator) cannot make an approval.)
⑬ Confirmation of the state of the application as necessary
⑭ JSPS
⑮ Co-Investigator
⑯ Request for consent

⑰ Consent/Dissent
⑱ Request automatically for consent (in case the Co-Investigator gave a consent)
⑲ The research institution to which the Co-Investigator belongs
(Administrative staff in the research institution + Administrative staff in the department)
⑳ Consent/Dissent
㉑ Draw back

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

1 The administrative staff in the research institution to which the applicant belongs issues the ID and the password to the applicant.

**[The applicant (Principal Investigator)]**

2 -① The applicant accesses the "Electronic Application System," using the ID and the password he/she received, and prepares the Research Proposal Document (PDF file), by entering the "items to be entered" in the website and by uploading the "forms to be uploaded" as an attached file.

2 -② The applicant enters the researcher(s) whom the applicant wants to add to the project members and requests him/her to give a consent to become a Co-Investigator in the "Project Members List" column of the "Application Information Input" screen in the electronic application system.

**[The researcher who is requested to become a Co-Investigator]**

3 The researcher is requested to participate in the project as a Co-Investigator from the applicant (Principal Investigator) via the electronic application system and then he/she selects "Consent" or "Dissent" after confirming the contents of the consent. In the case that the researcher participates in the project as Early-career researcher, the same process should be taken by confirming the contents of the consent.

**[The administrative staff in the research institution to which the Co-Investigator-to-be belongs]**

4 When the Co-Investigator-to-be gave a consent in the electronic application system, the research institution to which the Co-Investigator-to-be belongs selects "Consent/Confirm" or "Dissent."

**[The applicant (Principal Investigator)]**

5 If there are no mistakes in the Research Proposal Document (PDF file) and Letter of Intent the applicant prepared, he/she submits the Research Proposal Document (PDF file) to the research institution to which he/she belongs, by performing the "completed and submission" process. Note that the applicant cannot submit (send) the Research Proposal Document until he/she obtains the consents from all the Co-Investigators and Co-Investigators' research institutions listed in the Project Members List of the Research Proposal Document.

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

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

# V. Other Relevant Issues

## 1. Support through Platforms for Advanced Technologies and Research Resources

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

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

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

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

| Area | Platform Name | Core Institution | Support Function |
|---|---|---|---|
| Advanced Technology Support Platform Program | Platform of Advanced Bioimaging Support (*) | National Institute for Physiological Sciences<br>National Institute for Basic Biology | Advanced technical support and user training for:<br>・ Light microscopy<br>・ Electron microscopy<br>・ Magnetic resonance imaging<br>・ Imaging analysis |
| | Platform of Advanced Animal Model Support (*) | The Institute of Medical Science The University of Tokyo | Support for constructing animal models, Support for pathological analysis, Support for physiological analysis, and Support for molecular profiling |
| | Platform for Advanced Genome Science (*) | National Institute of Genetics | Advanced genome analysis (de novo genome sequencing; re-sequencing for genome variation detection; analysis of transcriptome, epigenome and metagenome; ultra-high sensitivity analysis for single cells, single molecules, etc.; big-data analysis and advanced bioinformatics; by using of the latest facilities and technologies) |

| Area | Platform Name | Core Institution | Support Function |
|---|---|---|---|
| Research Platform Resource Support Program | Platform of Supporting Cohort Study and Biospecimen Analysis (*) | The Institute of Medical Science, The University of Tokyo | Support for cohort study using bioresources, Support for maintaining and utilizing human brain resources, and Support using biospecimen |
| | Supply Platform of Short-lived Radioisotopes for Fundamental Research | Research Center for Nuclear Physics, Osaka University | Supply short-lived radioisotopes produced by accelerators for fundamental research in various scientific fields. |

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

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

## 2. Promotion of the Shared Use of Research Equipment

In "Reform of Competitive Research Funds: Towards a Sustained Output of Research Achievements (Interim Summary)" (June 24, 2015, Competitive Research Fund Reform Review meeting) it was decided that, when the original research objectives were fully achieved, versatile and large equipment should, in principle, be shared.
The government also addresses the need to promote the implementation and common use of research facilities and equipment, to establish a framework for the introduction, renewal, and utilization of organizational research facilities (core facilities), and to formulate and publicize policies for the internal and external sharing of research facilities and equipment in the Comprehensive Package to Strengthen Research Capacity and Support Young Researchers (January 23, 2020, Council for Science, Technology, and Innovation) and the Sixth Science, Technology, and Innovation Basic Plan (Cabinet Decision on March 26, 2021).
With this in mind, when purchasing equipment with competitive research funds, please actively work on the use of equipment purchased with other research funds, and the purchase and shared use of equipment from several research funds where it concerns especially large and versatile equipment. Please also make ensure that sharing is possible within the rules of the said competitive research funds, and no obstacle is made to the execution of the research project.

○ "Reform of Competitive Research Funds: Towards a Sustained Output of Research Achievements (Interim Report)"
(June 24, 2015, Competitive Research Fund Reform Review meeting)
URL: https://www.mext.go.jp/b_menu/shingi/chousa/shinkou/039/gaiyou/1359306.htm

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

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

○ Unified Rules for Administrative Procedures, Etc. Pertaining to Competitive Research Funds (May 24, 2023, Agreement of the Liaison Meeting of Related Offices and Ministries on Competitive Research Funds) (May 24, 2023 amended)

URL: https://www8.cao.go.jp/cstp/compefund/toitsu_rule_r50524.pdf

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

In the "Promotion of the 'Dialogue on Science and Technology with Citizens' (A Basic Course of Action)" (Adopted by the Minister of State for Science and Technology Policy and the Executive Members of the Council for Science and Technology Policy on June 19, 2010) which was compiled in June 2010, the activity in which researchers explain the content and achievements of their research activities to society and citizens in an easy-to-understand form is placed in the above-mentioned "Dialogue on Science and Technology with Citizens." Researchers who have received an allotment of public research funds amounting more than 30 million yen per year per case are requested to positively work on the "Dialogue on Science and Technology with Citizens." Universities and other research institutions are also requested to make positive efforts in order for researchers who have received public research funds to ensure the proper implementation of the "Dialogue on Science and Technology with Citizens," for example, by setting up support systems.

For KAKENHI, there is the question "Are you positively trying to publicize and disseminate the research content and research achievements?" especially in the interim/ex-post assessment of Scientific Research on Innovative Areas (Research in a Proposed Research Area) and Grant-in-Aid for Transformative Research Areas (A). Therefore, based on the above-mentioned basic policy, researchers should disseminate the achievements of research funded with KAKENHI to society and citizens in an even more positive way.

## 4. Cooperation with the National Bioscience Database Center

The National Bioscience Database Center (URL: 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/

## 5. Inter University Bio Backup Project

The purpose of the Inter-University Bio-Backup Project (IBBP) is to “back up” biological genetic resources, which are indispensable research resources in various research areas, and to avoid damage or loss of biological genetic resources due to unforeseen accidents, disasters, etc. The project newly commenced from 2012.

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

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

## 6. National BioResource Project

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

For that matter, please deposit (*) available bioresources among bioresources developed by 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.

(*) 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/

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

In implementing various research activities including research projects funded with KAKENHI, research institutions are asked to take systematic measures to ensure that the research achievements which have potential risks of being diverted to military use are not transferred to WMD developers, terrorist organizations, or people carrying out other dubious activities.
In Japan, export controls (*1) are carried out under the Foreign Exchange and Foreign Trade Act (Act No. 228 of 1949) (hereinafter referred to as “Foreign Exchange Act”). Therefore, in principle, in order to export (provide) cargo and technology regulated by the Foreign Exchange Act, it is necessary to obtain permission of the Minister of Economy, Trade and Industry. It is reminded that KAKENHI grantees must observe the Foreign Exchange Act as well as other laws, guidelines and circular notices issued by the government.

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

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

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

○ Ministry of Economy, Trade and Industry: Security Trade Control (General)
URL: https://www.meti.go.jp/policy/anpo/

○ Ministry of Economy, Trade and Industry: "Handbook on Security Trade Control"
URL:https://www.meti.go.jp/policy/anpo/seminer/shiryo/handbook.pdf

○ Center for Information on Security Trade Controls
URL: https://www.cistec.or.jp/index.html

○"Guidance for the Control of Sensitive Technologies for Security Export for Academic and Research Institutions 3rd Edition"
URL: https://www.meti.go.jp/policy/anpo/law_document/tutatu/t07sonota/t07sonota_jishukanri03.pdf

## 8. Strict Implementation of United Nations Security Council Resolution 2321

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

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

The UNSC Resolution 2321 can be found at:

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

## 9. Improvement of Treatment of Students in 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.

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

"The Sixth Science, Technology, and Innovation Basic Plan" (Cabinet Decision on March 26, 2021) identifies the importance of efforts to improve the security of professional quality and treatment so that the positions of University Research Administrators (URAs) and other management personnel will become attractive. The Comprehensive Package to Strengthen Research Capacity and Support Young Researchers (January 23, 2020, Council for Science, Technology, and Innovation) also addresses the need to establish career paths for management personnel, URAs, engineers, etc.

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

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

## 11. Promoting Gender Equality in JSPS Programs

The Science, Technology, and Innovation Basic Plan (Cabinet Decision on March 26, 2021), the Basic Plan for Gender Equality (Cabinet Decision on December 25, 2020), and Education and Human Resource Development

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

In addition, if due consideration is not paid to sexual differences in research and development processes that require such consideration, it may cause inappropriate impact at the stage of social implementation. As such, research and technological development that properly give attention to sexual differences, such as those in physique and the structure and functioning of bodies, are needed.

In light of these points, in KAKENHI-funded projects, JSPS will take into account efforts to promote the participation and advancement of female researchers and expand the range of human resources that will play a role in science and technology in the future. To advance science, it is important to secure an environment that allows diverse researchers to exercise their potentials and advance their activities. In March 2020, JSPS established the "Basic Guidelines for Promoting Gender Equality in JSPS Programs" to promote gender equal participation in areas of science.

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

## 12. "HIRAMEKI ☆ TOKIMEKI SCIENCE ~welcome to the university Laboratory~ KAKENHI" Program

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

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

URL：https://www.jsps.go.jp/hirameki/

Attached Table 2

# Grants-in-Aid for Scientific Research -KAKENHI-
# “Review Section Table”



March 9, 2022

Subdivision on Research Grant Screening Section of the Academic Deliberation in the Subdivision on Science, Council for Science and Technology

Attached Table 2

## About the Review Section Table

○The Review Section Table is classified by sections for the KAKENHI's review criteria. Applicants should select a review section that is most suitable for their own research proposal.

○There are three review sections: Basic, Medium-sized and Broad. The Review Section Table contains 1) Overview, 2) Table for Basic Section, 3) Table for Medium-sized and Broad Sections. Looking at the Overview, the applicants can understand an overall picture of sections. In addition, check the each Review Section Table for the detailed contents of each section and select a review section for their research proposal.

○The Basic Section is the fundamental unit. The Basic Section applies to "Grant-in-Aid for Scientific Research (B/C) (application section "General")" and for "Grant-in-Aid for Early-Career Scientists." Each Basic Section offers some examples related to the research contents. They are to help applicants understand the content of the Basic Section, so applicants are allowed to submit proposals even if the content is not given as examples.

○The Medium-sized Section applies to "Grant-in-Aid for Scientific Research (A) (application section "General")" and "Grant-in-Aid for Challenging Research (Pioneering/Exploratory)." Several Basic Sections are attached to indicate the scope of review for the Medium-sized Section. However, applicants are allowed to submit proposals even if the content does not fall under the Basic Sections included in the Medium-sized Section. It should be noted that some Basic Sections are included in several Medium-sized Sections, so applicants can select the Medium-sized Section that they consider most suitable for their own research proposal.

○The Broad Section applies to "Grant-in-Aid for Scientific Research (S)."
Several Medium-sized Sections are attached to indicate the scope of review of the Broad Section. However, applicants are allowed to submit proposals even if the content does not fall under the Medium-sized Sections included in the Broad Section. It should be noted that some Medium-sized Sections are included in several Broad Sections, so applicants can select the Broad Section that they consider most suitable for their own research proposal.

○To respond flexibly to research diversity in the review process, application in the Basic, Medium-sized and Broad Sections is made in the following formats: Basic Section: "○○ -related"; Medium-sized Section: "○○ and related fields," and Broad Section: listed alphabetically.

Attached Table 2

# The Review Section Table (Overview)

Broad Section A

Medium-sized Section 1 : Philosophy, art, and related fields

| Basic Section | |
|---|---|
| 01010 | Philosophy and ethics-related |
| 01020 | Chinese philosophy, Indian philosophy and Buddhist philosophy-related |
| 01030 | Religious studies-related |
| 01040 | History of thought-related |
| 01050 | Aesthetics and art studies-related |
| 01060 | History of arts-related |
| 01070 | Theory of art practice-related |
| 01080 | Sociology of science, history of science and technology-related |
| 90010 | Design-related |

Medium-sized Section 2 : Literature, linguistics, and related fields

| Basic Section | |
|---|---|
| 02010 | Japanese literature-related |
| 02020 | Chinese literature-related |
| 02030 | English literature and literature in the English language-related |
| 02040 | European literature-related |
| 02050 | Literature in general-related |
| 02060 | Linguistics-related |
| 02070 | Japanese linguistics-related |
| 02080 | English linguistics-related |
| 02090 | Japanese language education-related |
| 02100 | Foreign language education-related |
| 90020 | Library and information science, humanistic and social informatics-related |

Medium-sized Section 3 : History, archaeology, museology, and related fields

| Basic Section | |
|---|---|
| 03010 | Historical studies in general-related |
| 03020 | Japanese history-related |
| 03030 | History of Asia and Africa-related |
| 03040 | History of Europe and America-related |
| 03050 | Archaeology-related |
| 03060 | Cultural assets study-related |
| 03070 | Museology-related |

Medium-sized Section 4 : Geography, cultural anthropology, folklore, and related fields

| Basic Section | |
|---|---|
| 04010 | Geography-related |
| 04020 | Human geography-related |
| 04030 | Cultural anthropology and folklore-related |
| 80010 | Area studies-related |
| 80020 | Tourism studies-related |
| 80030 | Gender studies-related |

Broad Section A (continued)

Medium-sized Section 5 : Law and related fields

| Basic Section | |
|---|---|
| 05010 | Legal theory and history-related |
| 05020 | Public law-related |
| 05030 | International law-related |
| 05040 | Social law-related |
| 05050 | Criminal law-related |
| 05060 | Civil law-related |
| 05070 | New fields of law-related |

Medium-sized Section 6 : Political science and related fields

| Basic Section | |
|---|---|
| 06010 | Politics-related |
| 06020 | International relations-related |
| 80010 | Area studies-related |
| 80030 | Gender studies-related |

Medium-sized Section 7 : Economics, business administration, and related fields

| Basic Section | |
|---|---|
| 07010 | Economic theory-related |
| 07020 | Economic doctrines and economic thought-related |
| 07030 | Economic statistics-related |
| 07040 | Economic policy-related |
| 07050 | Public economics and labor economics-related |
| 07060 | Money and finance-related |
| 07070 | Economic history-related |
| 07080 | Business administration-related |
| 07090 | Commerce-related |
| 07100 | Accounting-related |
| 80020 | Tourism studies-related |

Medium-sized Section 8 : Sociology and related fields

| Basic Section | |
|---|---|
| 08010 | Sociology-related |
| 08020 | Social welfare-related |
| 08030 | Family and consumer sciences, and culture and living-related |
| 80020 | Tourism studies-related |
| 80030 | Gender studies-related |

Attached Table 2

| Broad Section A (continued) | | |
|---|---|---|
| Medium-sized Section 9 : Education and related fields | | |
| | Basic Section | |
| | 09010 | Education-related |
| | 09020 | Sociology of education-related |
| | 09030 | Childhood and nursery/pre-school education-related |
| | 09040 | Education on school subjects and primary/ secondary education-related |
| | 09050 | Tertiary education-related |
| | 09060 | Special needs education-related |
| | 09070 | Educational technology-related |
| | 09080 | Science education-related |
| | 02090 | Japanese language education-related |
| | 02100 | Foreign language education-related |
| Medium-sized Section 10 : Psychology and related fields | | |
| | Basic Section | |
| | 10010 | Social psychology-related |
| | 10020 | Educational psychology-related |
| | 10030 | Clinical psychology-related |
| | 10040 | Experimental psychology-related |
| | 90030 | Cognitive science-related |

| Broad Section B | | |
|---|---|---|
| Medium-sized Section 11 : Algebra, geometry, and related fields | | |
| | Basic Section | |
| | 11010 | Algebra-related |
| | 11020 | Geometry-related |
| Medium-sized Section 12 : Analysis, applied mathematics, and related fields | | |
| | Basic Section | |
| | 12010 | Basic analysis-related |
| | 12020 | Mathematical analysis-related |
| | 12030 | Basic mathematics-related |
| | 12040 | Applied mathematics and statistics-related |
| Medium-sized Section 13 : Condensed matter physics and related fields | | |
| | Basic Section | |
| | 13010 | Mathematical physics and fundamental theory of condensed matter physics-related |
| | 13020 | Semiconductors, optical properties of condensed matter and atomic physics-related |
| | 13030 | Magnetism, superconductivity and strongly correlated systems-related |
| | 13040 | Biophysics, chemical physics and soft matter physics-related |
| Medium-sized Section 14 : Plasma science and related fields | | |
| | Basic Section | |
| | 14010 | Fundamental plasma-related |
| | 14020 | Nuclear fusion-related |
| | 14030 | Applied plasma science-related |
| | 80040 | Quantum beam science-related |
| Medium-sized Section 15 : Particle-, nuclear-, astro-physics, and related fields | | |
| | Basic Section | |
| | 80040 | Quantum beam science-related |
| | 15010 | Theoretical studies related to particle-, nuclear-, cosmic ray and astro-physics |
| | 15020 | Experimental studies related to particle-, nuclear-, cosmic ray and astro-physics |
| Medium-sized Section 16 : Astronomy and related fields | | |
| | Basic Section | |
| | 16010 | Astronomy-related |
| Medium-sized Section 17 : Earth and planetary science and related fields | | |
| | Basic Section | |
| | 17010 | Space and planetary sciences-related |
| | 17020 | Atmospheric and hydrospheric sciences-related |
| | 17030 | Human geosciences-related |
| | 17040 | Solid earth sciences-related |
| | 17050 | Biogeosciences-related |

Attached Table 2

**Broad Section C**

**Medium-sized Section 18 : Mechanics of materials, production engineering, design engineering, and related fields**

| Basic Section | |
|---|---|
| 18010 | Mechanics of materials and materials-related |
| 18020 | Manufacturing and production engineering-related |
| 18030 | Design engineering-related |
| 18040 | Machine elements and tribology-related |

**Medium-sized Section 19 : Fluid engineering, thermal engineering, and related fields**

| Basic Section | |
|---|---|
| 19010 | Fluid engineering-related |
| 19020 | Thermal engineering-related |

**Medium-sized Section 20 : Mechanical dynamics, robotics, and related fields**

| Basic Section | |
|---|---|
| 20010 | Mechanics and mechatronics-related |
| 20020 | Robotics and intelligent system-related |

**Medium-sized Section 21 : Electrical and electronic engineering and related fields**

| Basic Section | |
|---|---|
| 21010 | Power engineering-related |
| 21020 | Communication and network engineering-related |
| 21030 | Measurement engineering-related |
| 21040 | Control and system engineering-related |
| 21050 | Electric and electronic materials-related |
| 21060 | Electron device and electronic equipment-related |

**Medium-sized Section 22 : Civil engineering and related fields**

| Basic Section | |
|---|---|
| 22010 | Civil engineering material, execution and construction management-related |
| 22020 | Structure engineering and earthquake engineering-related |
| 22030 | Geotechnical engineering-related |
| 22040 | Hydroengineering-related |
| 22050 | Civil engineering plan and transportation engineering-related |
| 22060 | Environmental systems for civil engineering-related |

**Medium-sized Section 23 : Architecture, building engineering, and related fields**

| Basic Section | |
|---|---|
| 23010 | Building structures and materials-related |
| 23020 | Architectural environment and building equipment-related |
| 23030 | Architectural planning and city planning-related |
| 23040 | Architectural history and design-related |
| 90010 | Design-related |

**Medium-sized Section 24 : Aerospace engineering, marine and maritime engineering, and related fields**

| Basic Section | |
|---|---|
| 24010 | Aerospace engineering-related |
| 24020 | Marine engineering-related |

**Medium-sized Section 25 : Social systems engineering, safety engineering, disaster prevention engineering, and related fields**

| Basic Section | |
|---|---|
| 25010 | Social systems engineering-related |
| 25020 | Safety engineering-related |
| 25030 | Disaster prevention engineering-related |

**Broad Section D**

**Medium-sized Section 26 : Materials engineering and related fields**

| Basic Section | |
|---|---|
| 26010 | Metallic material properties-related |
| 26020 | Inorganic materials and properties-related |
| 26030 | Composite materials and interfaces-related |
| 26040 | Structural materials and functional materials-related |
| 26050 | Material processing and microstructure control-related |
| 26060 | Metals production and resources production-related |

**Medium-sized Section 27 : Chemical engineering and related fields**

| Basic Section | |
|---|---|
| 27010 | Transport phenomena and unit operations-related |
| 27020 | Chemical reaction and process system engineering-related |
| 27030 | Catalyst and resource chemical process-related |
| 27040 | Biofunction and bioprocess engineering-related |

**Medium-sized Section 28 : Nano/micro science and related fields**

| Basic Section | |
|---|---|
| 28010 | Nanometer-scale chemistry-related |
| 28020 | Nanostructural physics-related |
| 28030 | Nanomaterials-related |
| 28040 | Nanobioscience-related |
| 28050 | Nano/micro-systems-related |

**Medium-sized Section 29 : Applied condensed matter physics and related fields**

| Basic Section | |
|---|---|
| 29010 | Applied physical properties-related |
| 29020 | Thin film/surface and interfacial physical properties-related |
| 29030 | Applied condensed matter physics-related |

**Medium-sized Section 30 : Applied physics and engineering and related fields**

| Basic Section | |
|---|---|
| 30010 | Crystal engineering-related |
| 30020 | Optical engineering and photon science-related |

**Medium-sized Section 31 : Nuclear engineering, earth resources engineering, energy engineering, and related fields**

| Basic Section | |
|---|---|
| 31010 | Nuclear engineering-related |
| 31020 | Earth resource engineering, Energy sciences-related |

**Medium-sized Section 90 : Biomedical engineering and related fields**

| Basic Section | |
|---|---|
| 90110 | Biomedical engineering-related |
| 90120 | Biomaterials-related |
| 90130 | Medical systems-related |
| 90140 | Medical technology assessment-related |
| 90150 | Medical assistive technology-related |

Attached Table 2

| Broad Section E | | |
|---|---|---|
| Medium-sized Section 32 : Physical chemistry, functional solid state chemistry, and related fields | | |
| | Basic Section | |
| | 32010 | Fundamental physical chemistry-related |
| | 32020 | Functional solid state chemistry-related |
| Medium-sized Section 33 : Organic chemistry and related fields | | |
| | Basic Section | |
| | 33010 | Structural organic chemistry and physical organic chemistry-related |
| | 33020 | Synthetic organic chemistry-related |
| Medium-sized Section 34 : Inorganic/coordination chemistry, analytical chemistry, and related fields | | |
| | Basic Section | |
| | 34010 | Inorganic/coordination chemistry-related |
| | 34020 | Analytical chemistry-related |
| | 34030 | Green sustainable chemistry and environmental chemistry-related |
| Medium-sized Section 35 : Polymers, organic materials, and related fields | | |
| | Basic Section | |
| | 35010 | Polymer chemistry-related |
| | 35020 | Polymer materials-related |
| | 35030 | Organic functional materials-related |
| Medium-sized Section 36 : Inorganic materials chemistry, energy-related chemistry, and related fields | | |
| | Basic Section | |
| | 36010 | Inorganic compounds and inorganic materials chemistry-related |
| | 36020 | Energy-related chemistry |
| Medium-sized Section 37 : Biomolecular chemistry and related fields | | |
| | Basic Section | |
| | 37010 | Bio-related chemistry |
| | 37020 | Chemistry and chemical methodology of biomolecules-related |
| | 37030 | Chemical biology-related |

| Broad Section F | | |
|---|---|---|
| Medium-sized Section 38 : Agricultural chemistry and related fields | | |
| | Basic Section | |
| | 38010 | Plant nutrition and soil science-related |
| | 38020 | Applied microbiology-related |
| | 38030 | Applied biochemistry-related |
| | 38040 | Bioorganic chemistry-related |
| | 38050 | Food sciences-related |
| | 38060 | Applied molecular and cellular biology-related |
| Medium-sized Section 39 : Agricultural and environmental biology and related fields | | |
| | Basic Section | |
| | 39010 | Science in plant genetics and breeding-related |
| | 39020 | Crop production science-related |
| | 39030 | Horticultural science-related |
| | 39040 | Plant protection science-related |
| | 39050 | Insect science-related |
| | 39060 | Conservation of biological resources-related |
| | 39070 | Landscape science-related |
| Medium-sized Section 40 : Forestry and forest products science, applied aquatic science, and related fields | | |
| | Basic Section | |
| | 40010 | Forest science-related |
| | 40020 | Wood science-related |
| | 40030 | Aquatic bioproduction science-related |
| | 40040 | Aquatic life science-related |
| Medium-sized Section 41 : Agricultural economics and rural sociology, agricultural engineering, and related fields | | |
| | Basic Section | |
| | 41010 | Agricultural and food economics-related |
| | 41020 | Rural sociology and agricultural structure-related |
| | 41030 | Rural environmental engineering and planning-related |
| | 41040 | Agricultural environmental engineering and agricultural information engineering-related |
| | 41050 | Environmental agriculture-related |
| Medium-sized Section 42 : Veterinary medical science, animal science, and related fields | | |
| | Basic Section | |
| | 42010 | Animal production science-related |
| | 42020 | Veterinary medical science-related |
| | 42030 | Animal life science-related |
| | 42040 | Laboratory animal science-related |

Attached Table 2

| Broad Section G | | |
|---|---|---|
| Medium-sized Section 43 : Biology at molecular to cellular levels, and related fields | | |
| | Basic Section | |
| | 43010 | Molecular biology-related |
| | 43020 | Structural biochemistry-related |
| | 43030 | Functional biochemistry-related |
| | 43040 | Biophysics-related |
| | 43050 | Genome biology-related |
| | 43060 | System genome science-related |
| Medium-sized Section 44 : Biology at cellular to organismal levels, and related fields | | |
| | Basic Section | |
| | 44010 | Cell biology-related |
| | 44020 | Developmental biology-related |
| | 44030 | Plant molecular biology and physiology-related |
| | 44040 | Morphology and anatomical structure-related |
| | 44050 | Animal physiological chemistry, physiology and behavioral biology-related |
| Medium-sized Section 45 : Biology at organismal to population levels and anthropology, and related fields | | |
| | Basic Section | |
| | 45010 | Genetics-related |
| | 45020 | Evolutionary biology-related |
| | 45030 | Biodiversity and systematics-related |
| | 45040 | Ecology and environment-related |
| | 45050 | Physical anthropology-related |
| | 45060 | Applied anthropology-related |
| Medium-sized Section 46 : Neuroscience and related fields | | |
| | Basic Section | |
| | 46010 | Neuroscience-general-related |
| | 46020 | Anatomy and histopathology of nervous system-related |
| | 46030 | Function of nervous system-related |

| Broad Section H | | |
|---|---|---|
| Medium-sized Section 47 : Pharmaceutical sciences and related fields | | |
| | Basic Section | |
| | 47010 | Pharmaceutical chemistry and drug development sciences-related |
| | 47020 | Pharmaceutical analytical chemistry and physicochemistry-related |
| | 47030 | Pharmaceutical hygiene and biochemistry-related |
| | 47040 | Pharmacology-related |
| | 47050 | Environmental and natural pharmaceutical resources-related |
| | 47060 | Clinical pharmacy-related |
| Medium-sized Section 48 : Biomedical structure and function and related fields | | |
| | Basic Section | |
| | 48010 | Anatomy-related |
| | 48020 | Physiology-related |
| | 48030 | Pharmacology-related |
| | 48040 | Medical biochemistry-related |
| Medium-sized Section 49 : Pathology, infection/immunology, and related fields | | |
| | Basic Section | |
| | 49010 | Pathological biochemistry-related |
| | 49020 | Human pathology-related |
| | 49030 | Experimental pathology-related |
| | 49040 | Parasitology-related |
| | 49050 | Bacteriology-related |
| | 49060 | Virology-related |
| | 49070 | Immunology-related |

Attached Table 2

| Broad Section I | |
|---|---|
| Medium-sized Section 50 : Oncology and related fields | |
| Basic Section | |
| 50010 | Tumor biology-related |
| 50020 | Tumor diagnostics and therapeutics-related |
| Medium-sized Section 51 : Brain sciences and related fields | |
| Basic Section | |
| 51010 | Basic brain sciences-related |
| 51020 | Cognitive and brain science-related |
| 51030 | Pathophysiologic neuroscience-related |
| Medium-sized Section 52 : General internal medicine and related fields | |
| Basic Section | |
| 52010 | General internal medicine-related |
| 52020 | Neurology-related |
| 52030 | Psychiatry-related |
| 52040 | Radiological sciences-related |
| 52050 | Embryonic medicine and pediatrics-related |
| Medium-sized Section 53 : Organ-based internal medicine and related fields | |
| Basic Section | |
| 53010 | Gastroenterology-related |
| 53020 | Cardiology-related |
| 53030 | Respiratory medicine-related |
| 53040 | Nephrology-related |
| 53050 | Dermatology-related |
| Medium-sized Section 54 : Internal medicine of the bio-information integration and related fields | |
| Basic Section | |
| 54010 | Hematology and medical oncology-related |
| 54020 | Connective tissue disease and allergy-related |
| 54030 | Infectious disease medicine-related |
| 54040 | Metabolism and endocrinology-related |
| Medium-sized Section 55 : Surgery of the organs maintaining homeostasis and related fields | |
| Basic Section | |
| 55010 | General surgery and pediatric surgery-related |
| 55020 | Digestive surgery-related |
| 55030 | Cardiovascular surgery-related |
| 55040 | Respiratory surgery-related |
| 55050 | Anesthesiology-related |
| 55060 | Emergency medicine-related |
| Medium-sized Section 56 : Surgery related to the biological and sensory functions and related fields | |
| Basic Section | |
| 56010 | Neurosurgery-related |
| 56020 | Orthopedics-related |
| 56030 | Urology-related |
| 56040 | Obstetrics and gynecology-related |
| 56050 | Otorhinolaryngology-related |
| 56060 | Ophthalmology-related |
| 56070 | Plastic and reconstructive surgery-related |

| Broad Section I (continued) | |
|---|---|
| Medium-sized Section 57 : Oral science and related fields | |
| Basic Section | |
| 57010 | Oral biological science-related |
| 57020 | Oral pathobiological science-related |
| 57030 | Conservative dentistry-related |
| 57040 | Regenerative dentistry and dental engineering-related |
| 57050 | Prosthodontics-related |
| 57060 | Surgical dentistry-related |
| 57070 | Developmental dentistry-related |
| 57080 | Social dentistry-related |
| Medium-sized Section 58 : Society medicine, nursing, and related fields | |
| Basic Section | |
| 58010 | Medical management and medical sociology-related |
| 58020 | Hygiene and public health-related: including laboratory approach |
| 58030 | Hygiene and public health-related: excluding laboratory approach |
| 58040 | Forensics medicine-related |
| 58050 | Fundamental of nursing-related |
| 58060 | Clinical nursing-related |
| 58070 | Lifelong developmental nursing-related |
| 58080 | Gerontological nursing and community health nursing-related |
| Medium-sized Section 59 : Sports sciences, physical education, health sciences, and related fields | |
| Basic Section | |
| 59010 | Rehabilitation science-related |
| 59020 | Sports sciences-related |
| 59030 | Physical education, and physical and health education-related |
| 59040 | Nutrition science and health science-related |
| Medium-sized Section 90 : Biomedical engineering and related fields | |
| Basic Section | |
| 90110 | Biomedical engineering-related |
| 90120 | Biomaterials-related |
| 90130 | Medical systems-related |
| 90140 | Medical technology assessment-related |
| 90150 | Medical assistive technology-related |

Attached Table 2

| Broad Section J | | |
|---|---|---|
| Medium-sized Section 60 : Information science, computer engineering, and related fields | | |
| | Basic Section | |
| | 60010 | Theory of informatics-related |
| | 60020 | Mathematical informatics-related |
| | 60030 | Statistical science-related |
| | 60040 | Computer system-related |
| | 60050 | Software-related |
| | 60060 | Information network-related |
| | 60070 | Information security-related |
| | 60080 | Database-related |
| | 60090 | High performance computing-related |
| | 60100 | Computational science-related |
| Medium-sized Section 61 : Human informatics and related fields | | |
| | Basic Section | |
| | 61010 | Perceptual information processing-related |
| | 61020 | Human interface and interaction-related |
| | 61030 | Intelligent informatics-related |
| | 61040 | Soft computing-related |
| | 61050 | Intelligent robotics-related |
| | 61060 | Kansei informatics-related |
| | 90010 | Design-related |
| | 90030 | Cognitive science-related |
| Medium-sized Section 62 : Applied informatics and related fields | | |
| | Basic Section | |
| | 62010 | Life, health and medical informatics-related |
| | 62020 | Web informatics and service informatics-related |
| | 62030 | Learning support system-related |
| | 62040 | Entertainment and game informatics-related |
| | 90020 | Library and information science, humanistic and social informatics-related |

| Broad Section K | | |
|---|---|---|
| Medium-sized Section 63 : Environmental analyses and evaluation and related fields | | |
| | Basic Section | |
| | 63010 | Environmental dynamic analysis-related |
| | 63020 | Radiation influence-related |
| | 63030 | Chemical substance influence on environment-related |
| | 63040 | Environmental impact assessment-related |
| Medium-sized Section 64 : Environmental conservation measure and related fields | | |
| | Basic Section | |
| | 64010 | Environmental load and risk assessment-related |
| | 64020 | Environmental load reduction and remediation-related |
| | 64030 | Environmental materials and recycle technology-related |
| | 64040 | Social-ecological systems-related |
| | 64050 | Sound material-cycle social systems-related |
| | 64060 | Environmental policy and social systems-related |

(Attachment 2)

**The Review Section Table (Table for Medium-sized and Broad Sections)**

When selecting a review section, applicants should first acquire an overall picture of the review sections based on the Review Section Table (Overview). In addition, check the Review Section Table (Table for Medium-sized and Broad Sections) for the detailed contents of each section and select a review section for their research proposal.
Also, some items of Basic Section may be presented in plural Medium-sized and Broad Sections. The items of Basic Section presented in plural Medium-sized Section are 9 and 3 items among 9 are presented in plural Medium-sized and Broad Sections (as shown below).
In addition, five other Basic Sections (90110-90150) may be presented in only one Medium-sized Section and two Broad Sections.

## 【Basic sections may be presented in plural Medium-sized and Broad Section】

| Basic Section Item | Basic Section Description | Medium-sized Sections corresponding Basic Sections | Broad Sections corresponding Basic Sections |
|---|---|---|---|
| 02090 | Japanese language education-related | ２，９ | Ａ |
| 02100 | Foreign language education-related | ２，９ | Ａ |
| 80010 | Area studies-related | ４，６ | Ａ |
| 80020 | Tourism studies-related | ４，７，８ | Ａ |
| 80030 | Gender studies-related | ４，６，８ | Ａ |
| 80040 | Quantum beam science-related | １４，１５ | Ｂ |
| 90010 | Design-related | １，　２３，<br>６１ | Ａ，Ｃ，Ｊ |
| 90020 | Library and information science, humanistic and social informatics-related | ２，６２ | Ａ，Ｊ |
| 90030 | Cognitive science-related | １０，６１ | Ａ，Ｊ |
| 90110 | Biomedical engineering-related | ９０ | Ｄ，Ｉ |
| 90120 | Biomaterials-related | ９０ | Ｄ，Ｉ |
| 90130 | Medical systems-related | ９０ | Ｄ，Ｉ |
| 90140 | Medical technology assessment-related | ９０ | Ｄ，Ｉ |
| 90150 | Medical assistive technology-related | ９０ | Ｄ，Ｉ |

## 【Medium-sized section may be presented in plural Broad Section】

| Medium-sized Section Item | Medium-sized section Description | Broad Sections corresponding Medium-sized Section |
|---|---|---|
| ９０ | Biomedical engineering and related fields | Ｄ，Ｉ |

Attached Table 2

Broad Section A

Medium-sized Section 1 : Philosophy, art, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 01010 | Philosophy and ethics-related<br>Philosophy in general, Ethics in general, Western philosophy, Western ethics, Japanese philosophy, Japanese ethics, Applied ethics, etc. |
| 01020 | Chinese philosophy, Indian philosophy and Buddhist philosophy-related<br>Chinese philosophy/thought, Indian philosophy/thought, Buddhist philosophy, Bibliography, Philology, etc. |
| 01030 | Religious studies-related<br>History of religions, Philosophy of religion, Theology, Sociology of religion, Psychology of religion, Anthropology of religion, Studies of religious folklore, Mythology, Bibliography, Philology, etc. |
| 01040 | History of thought-related<br>History of thought in general, History of Western thought, History of Eastern thought, History of Japanese thought, History of Islamic thought, etc. |
| 01050 | Aesthetics and art studies-related<br>Philosophy of art, Aesthetics, Music theory, Theatrical theory, Miscellaneous art studies, etc. |
| 01060 | History of arts-related<br>Japanese art, Eastern art, Western art, Contemporary art, Craft, Design, Architecture, Costume, Photography, etc. |
| 01070 | Theory of art practice-related<br>Art expression, Arts management, Art policy, Art production, etc. |
| 01080 | Sociology of science, history of science and technology-related<br>Sociology of science, History of science, History of technology, History of medicine, Industrial archeology, Philosophy of science, Foundation of science, STS (Science, technology and society), etc. |
| 90010 | Design-related<br>Information design, Environmental design, Industrial design, Spatial design, Design history, Theory of design, Design standard, Design support, Evaluation of design, Design education, etc. |

Medium-sized Section 2 : Literature, linguistics, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 02010 | Japanese literature-related<br>Japanese literature in general, Ancient literature, Medieval literature, Chinese classics in Japan, Bibliography, Philology, Premodern literature, Modern literature, Contemporary literature, Literary theory, etc. |
| 02020 | Chinese literature-related<br>Chinese literature, Bibliography, Philology, Literary theory, etc. |
| 02030 | English literature and literature in the English language-related<br>English literature, American literature, Literature in the English language, Literary theory, Bibliography, Philology, etc. |
| 02040 | European literature-related<br>French literature, Literature in the French language, German literature, Literature in the German language, Classics, Russian and East European literature, Literature in other European languages, Literary theory, Bibliography, Philology, etc. |
| 02050 | Literature in general-related<br>Literature in other languages and areas, Literary theory, Comparative literature, Bibliography, Philology, Literature education, etc. |
| 02060 | Linguistics-related<br>Phonetics/phonology, Semantics/pragmatics, Morphosyntax, Sociolinguistics, Contrastive linguistics, Psycholinguistics, Neurolinguistics, Historical linguistics, Corpus linguistics, Endangered and minority languages, etc. |

(Broad Section A)

| | |
|---|---|
| 02070 | Japanese linguistics-related |
| | Phonetics/phonology, Writing systems, Lexicon and semantics, Grammar, Stylistics, Pragmatics, Language life, Dialect, History of the Japanese language, History of Japanese linguistics, etc. |
| 02080 | English linguistics-related |
| | Phonetics/phonology, Lexicon and semantics, Grammar, Stylistics, Pragmatics, Sociolinguistics, Diversity of the English language, Corpus linguistics, History of the English language, History of English linguistics, etc. |
| 02090 | Japanese language education-related |
| | Research on learners, Language acquisition, Teaching material, Curriculum evaluation, Japanese language education for specific purposes, Bilingual education, Research on teachers, Japanese language for Japanese language education, History of Japanese language education, Cross-cultural understanding, etc. |
| 02100 | Foreign language education-related |
| | Learning method, Computer-assisted language learning (CALL), Teaching material, Language testing, Theory of second language acquisition, Early English education, History of foreign language education and language policies, Curriculum evaluation, Training foreign language teachers, Cross-cultural understanding, etc. |
| 90020 | Library and information science, humanistic and social informatics-related |
| | Library science, Information services, Information organizing, Information retrieval, Bibliometrics, Information resources, Information ethics, Digital humanities, Social Informatics, Digital archives, etc. |

Medium-sized Section 3 : History, archaeology, museology, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 03010 | Historical studies in general-related |
| | Historical theory, Historical methodology, Research in historical materials, Memory and medium, World history, History of cultural and diplomatic exchange, Comparative history, Global history, Environmental history, History of emotions, etc. |
| 03020 | Japanese history-related |
| | History of ancient Japan, History of medieval Japan, History of early modern Japan, History of modern Japan, History of local Japan, History of external relations, History of culture and religion, History of Japanese environment, History of Japanese city, Research in historical materials, etc. |
| 03030 | History of Asia and Africa-related |
| | Chinese history, East Asian history, Central Eurasian history, Southeast Asian history, Oceanian history, South Asian history, West Asian history, African history, History of cultural and diplomatic exchange, Research in historical materials, etc. |
| 03040 | History of Europe and America-related |
| | Ancient European history, Medieval European history, Modern and contemporary West European history, Modern and contemporary East European history, North and South American history, History of cultural and diplomatic exchange, Comparative history, Research in historical materials, etc. |
| 03050 | Archaeology-related |
| | Archaeology in general, Prehistoric archaeology, Historical archaeology, Japanese archaeology, Ancient civilizations, History of material culture, Experimental archaeology, Information archaeology, Study of buried cultural property, Ecological archeology, etc. |
| 03060 | Cultural assets study-related |
| | Dating methods, Material analysis, Production techniques, Conservation science, Archaeological prospection, Plant and animal residues, Human remains, Cultural heritage, Cultural property policy, Restoration of cultural properties, etc. |
| 03070 | Museology-related |
| | Museum displays and exhibitions, Museum management, Museum collections and documentation, Museum conservation and preservation, Museum education and learning, Museum informatics and media studies, Museum finance and administration, History of museums and museology, etc. |

Medium-sized Section 4 : Geography, cultural anthropology, folklore, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 04010 | Geography-related |
| | Geography in general, Land use, Landscape, Environmental system, Geomorphology, Climatology, Hydrology, Cartography, Geographic information system, Regional planning, etc. |

(Broad Section A)

| | |
|---|---|
| 04020 | Human geography-related |
| | Human geography in general, Economic geography, Social geography, Political geography, Cultural geography, Urban geography, Rural geography, Historical geography, Regional geography, Geography education, etc. |
| 04030 | Cultural anthropology and folklore-related |
| | Cultural anthropology in general, Folklore in general, Material culture, Ecology, Social relationship, Religion, Arts, Health care, Border crossing, Minority, etc. |
| 80010 | Area studies-related |
| | Area studies in general, Cross-regional comparative studies, Aid, Social development, Interregional exchange, Environment, Transnationalism, Globalization, Refugees, Conflict, etc. |
| 80020 | Tourism studies-related |
| | Tourism studies in general, Tourism resources, Tourism policy, Tourism industry, Tourist area, Tourists, Tourism culture, Tourism media, Sustainable tourism, Tourism ethics, etc. |
| 80030 | Gender studies-related |
| | Gender studies in general, Feminism, Men's studies, Sexuality, Queer studies, Labor, Violence, Prostitution, Reproductive technology, Gender equality, etc. |

Medium-sized Section 5 : Law and related fields

| Basic Section | Examples of related research content |
|---|---|
| 05010 | Legal theory and history-related |
| | Legal philosophy, Roman law, Legal history, Sociology of law, Comparative law, Foreign law, Law and policy, Law and economics, Judicial system, etc. |
| 05020 | Public law-related |
| | Constitutional law, Administrative law, Tax law, etc. |
| 05030 | International law-related |
| | Public international law, Private international law, International human rights law, International economic law, EU law, etc. |
| 05040 | Social law-related |
| | Labor law, Economic law, Social security law, Education law, etc. |
| 05050 | Criminal law-related |
| | Criminal law, Criminal procedure, Criminology, Criminal justice policy, Juvenile law, Law and psychology, etc. |
| 05060 | Civil law-related |
| | Civil law, Commercial law, Civil procedure, Insolvency law, Alternative dispute resolution, etc. |
| 05070 | New fields of law-related |
| | Environmental law, Medical law, Information law, Consumer law, Intellectual property law, Law and gender, Legal profession, etc. |

Medium-sized Section 6 : Political science and related fields

| Basic Section | Examples of related research content |
|---|---|
| 06010 | Politics-related |
| | Political theory, History of political thought, Political history, Political process, Political participation, Political economy, Public administration, Local government, Comparative politics, Public policy, etc. |
| 06020 | International relations-related |
| | Theory of international relations, International history, Foreign policy, International security, International political economy, Global governance, International cooperation, Peace research, etc. |
| 80010 | Area studies-related |
| | Area studies in general, Cross-regional comparative studies, Aid, Social development, Interregional exchange, Environment, Transnationalism, Globalization, Refugees, Conflict, etc. |

(Broad Section A)

| | |
|---|---|
| 80030 | Gender studies-related |
| | Gender studies in general, Feminism, Men's studies, Sexuality, Queer studies, Labor, Violence, Prostitution, Reproductive technology, Gender equality, etc. |

Medium-sized Section 7 : Economics, business administration, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 07010 | Economic theory-related |
| | Microeconomics, Macroeconomics, Game theory, Behavioral economics, Experimental economics, Economic theory, Evolutionary economics, Economic institutions, Economic systems, etc. |
| 07020 | Economic doctrines and economic thought-related |
| | Economic doctrines, Economic thought, Social thought, Economic philosophy, etc. |
| 07030 | Economic statistics-related |
| | Statistical system, Statistical research, Economic statistics, Big data, Econometrics, Financial econometrics, etc. |
| 07040 | Economic policy-related |
| | Economic policy, Industrial organization, International economics, Development economics, Environmental and resource economics, Japanese economy, Regional economy, Urban economics, Transportation economics, Spatial economics, etc. |
| 07050 | Public economics and labor economics-related |
| | Public finance, Public economics, Health economics, Labor economics, Social security, Education economics, Law and economics, Political economy, Demography, etc. |
| 07060 | Money and finance-related |
| | Monetary economics, Finance, International finance, Corporate finance, Financial engineering, Insurance, etc. |
| 07070 | Economic history-related |
| | Economic history, Business history, Industrial history, etc. |
| 07080 | Business administration-related |
| | Organization theory, Corporate strategy, Organizational behavior, Corporation theory, Corporate governance theory, Human resource management, Technology/Innovation management theory, International business, Management information, Business administration in general, etc. |
| 07090 | Commerce-related |
| | Marketing, Consumer behavior, Distributive sciences, Logistics, Commerce in general, etc. |
| 07100 | Accounting-related |
| | Financial accounting, Management accounting, Auditing, Accounting in general, etc. |
| 80020 | Tourism studies-related |
| | Tourism studies in general, Tourism resources, Tourism policy, Tourism industry, Tourist area, Tourists, Tourism culture, Tourism media, Sustainable tourism, Tourism ethics, etc. |

Medium-sized Section 8 : Sociology and related fields

| Basic Section | Examples of related research content |
|---|---|
| 08010 | Sociology-related |
| | Sociology in general, Community, Family, Labor, Stratification, Culture, Media, Ethnicity, Social movements, Social research, etc. |
| 08020 | Social welfare-related |
| | Social work, Social policy, Social welfare history, Child welfare, Social welfare for people with disabilities, Social welfare for aging, Community welfare, Poverty, Volunteerism, Social welfare in general, etc. |

(Broad Section A)

| Basic Section | Examples of related research content |
|---|---|
| 08030 | Family and consumer sciences, and culture and living-related |
| | Dress and fashion, Diet habits, Housing, Family resource management, Family relations, Lifestyle, Culture and living, Family and consumer education, Family and consumer sciences in general, etc. |
| 80020 | Tourism studies-related |
| | Tourism studies in general, Tourism resources, Tourism policy, Tourism industry, Tourist area, Tourists, Tourism culture, Tourism media, Sustainable tourism, Tourism ethics, etc. |
| 80030 | Gender studies-related |
| | Gender studies in general, Feminism, Men's studies, Sexuality, Queer studies, Labor, Violence, Prostitution, Reproductive technology, Gender equality, etc. |

Medium-sized Section 9 : Education and related fields

| Basic Section | Examples of related research content |
|---|---|
| 09010 | Education-related |
| | History of education, Philosophy of education, Curriculum and pedagogy, Teacher and trainer, School education, Social and community education, Institutions and administration, Comparative education, Educational administration, etc. |
| 09020 | Sociology of education-related |
| | Sociology of education, Socialization, Educational community, Destination and career formation, Class disparities, Gender, Education policy, Globalization and development, etc. |
| 09030 | Childhood and nursery/pre-school education-related |
| | Childhood, Nursery/pre-school education, Right of child, Development, Contents and methods of child care, Childcare facilities and kindergarten, Caregiver and pre-school teacher, Child care support, Childhood culture, History and thought, etc. |
| 09040 | Education on school subjects and primary/secondary education-related |
| | Education of individual subjects, Lessons of each subject area, Instructional guidance, Teacher education, Special activities, Integrated studies, Moral education, etc. |
| 09050 | Tertiary education-related |
| | Policy, Admission and articulation, Curriculum, Career guidance, Teacher and staff, Scientific research, Regional link and contribution, Globalization, Management and governance, Non-university higher education, etc. |
| 09060 | Special needs education-related |
| | Philosophy and history, Inclusion and cohesive society, Instructions and supports, Developmental disabilities, Emotional disturbance, Intellectual disabilities, Language disorders, Physical disabilities, Career education, etc. |
| 09070 | Educational technology-related |
| | Curriculum development, Teaching-learning support systems, Utilization of media, Utilization of ICT, Teacher's education, Information literacy, etc. |
| 09080 | Science education-related |
| | Science education, Science communication, Scientific literacy, Science and society, STEM education, etc. |
| 02090 | Japanese language education-related |
| | Research on learners, Language acquisition, Teaching material, Curriculum evaluation, Japanese language education for specific purposes, Bilingual education, Research on teachers, Japanese language for Japanese language education, History of Japanese language education, Cross-cultural understanding, etc. |
| 02100 | Foreign language education-related |
| | Learning method, Computer-assisted language learning (CALL), Teaching material, Language testing, Theory of second language acquisition, Early English education, History of foreign language education and language policies, Curriculum evaluation, Training foreign language teachers, Cross-cultural understanding, etc. |

Medium-sized Section 10 : Psychology and related fields

| Basic Section | Examples of related research content |
|---|---|
| 10010 | Social psychology-related |
| | Social psychology in general, Self, Group, Attitude and behavior, Affection/emotion, Interpersonal relation, Social issues, Culture, etc. |

Attached Table 2

| | | | |
|---|---|---|---|
| (Broad Section A) | | 10020 | Educational psychology-related |
| | | | Educational psychology in general, Development, Family, School, Clinical practice, Personality, Learning, Assessment and evaluation, etc. |
| | | 10030 | Clinical psychology-related |
| | | | Clinical psychology in general, Psychological disorder, Assessment, Psychological intervention, Training, Mental health, Crime and delinquency, Community, etc. |
| | | 10040 | Experimental psychology-related |
| | | | Experimental psychology in general, Sensation, Perception, Attention, Memory, Language, Emotion, Learning, etc. |
| | | 90030 | Cognitive science-related |
| | | | Cognitive science in general, Cognitive models, Kansei, Human factors, Cognitive and brain science, Comparative cognition, Cognitive linguistics, Cognitive engineering, etc. |

Broad Section B

Medium-sized Section 11: Algebra, geometry, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 11010 | Algebra-related |
| | Group theory, Ring theory, Representation theory, Algebraic combinatorics, Number theory, Arithmetic geometry, Algebraic geometry, Algebraic analysis, etc. |
| 11020 | Geometry-related |
| | Differential geometry, Riemannian geometry, Symplectic geometry, Complex geometry, Topology, Differential topology, Low dimensional topology, etc. |

Medium-sized Section 12: Analysis, applied mathematics, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 12010 | Basic analysis-related |
| | Functional analysis, Complex analysis, Probability theory, Harmonic analysis, Operator theory, Spectral analysis, Operator algebras, Algebraic analysis, Representation theory, etc. |
| 12020 | Mathematical analysis-related |
| | Functional equations, Real analysis, Dynamical system, Variational method, Nonlinear analysis, Applied analysis, etc. |
| 12030 | Basic mathematics-related |
| | Mathematical logic and foundations, Information theory, Discrete mathematics, Computer mathematics, History of mathematics, etc. |
| 12040 | Applied mathematics and statistics-related |
| | Numerical analysis, Mathematical modelling, Optimal control, Game theory, Statistical mathematics, etc. |

Medium-sized Section 13: Condensed matter physics and related fields

| Basic Section | Examples of related research content |
|---|---|
| 13010 | Mathematical physics and fundamental theory of condensed matter physics-related |
| | Statistical physics, Fundamental theory of condensed matter physics, Mathematical physics, Nonequilibrium nonlinear physics, Fluid dynamics, Computational physics, Quantum information theory, etc. |
| 13020 | Semiconductors, optical properties of condensed matter and atomic physics-related |
| | Semiconductors, Dielectrics, Atoms and molecules, Mesoscopic systems, Crystals, Surfaces and interfaces, Optical properties of condensed matter, Quantum electronics, Quantum information, etc. |
| 13030 | Magnetism, superconductivity and strongly correlated systems-related |
| | Magnetism, Strongly correlated electron systems, Superconductivity, Quantum fluids and solids, Molecular solids, etc. |
| 13040 | Biophysics, chemical physics and soft matter physics-related |
| | Physics of biological phenomena, Physics of biological matters, Liquids and glasses, Soft matters, Rheology, etc. |

Attached Table 2

(Broad Section B)

Medium-sized Section 14: Plasma science and related fields

| Basic Section | Examples of related research content |
|---|---|
| 14010 | Fundamental plasma-related<br>Basic plasmas, Magnetized plasmas, Laser plasmas, Strongly coupled plasmas, Plasma diagnostics, Astrophysical and space plasmas, etc. |
| 14020 | Nuclear fusion-related<br>Plasma confinement, Plasma control, Plasma heating, Plasma diagnostics, Edge plasma, Plasma wall interaction, Inertial fusion, Fusion material, Fusion system, etc. |
| 14030 | Applied plasma science-related<br>Plasma processing, Plasma material science, General plasma applications, etc. |
| 80040 | Quantum beam science-related<br>Accelerators, Beam physics, Radiation detectors, Beam control, Applied quantum beam science, etc. |

Medium-sized Section 15: Particle-, nuclear-, astro-physics, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 80040 | Quantum beam science-related<br>Accelerators, Beam physics, Radiation detectors, Beam control, Applied quantum beam science, etc. |
| 15010 | Theoretical studies related to particle-, nuclear-, cosmic ray and astro-physics<br>Particle physics, Nuclear physics, Cosmic-ray physics, Astrophysics, Relativity, Gravity, etc. |
| 15020 | Experimental studies related to particle-, nuclear-, cosmic ray and astro-physics<br>Particle physics, Nuclear physics, Cosmic-ray physics, Astrophysics, Relativity, Gravity, etc. |

Medium-sized Section 16: Astronomy and related fields

| Basic Section | Examples of related research content |
|---|---|
| 16010 | Astronomy-related<br>Theoretical astronomy, Radio astronomy, Optical/infrared astronomy, X-ray/γ-ray astronomy, Astrometry, Solar physics, Exoplanet astronomy, etc. |

Medium-sized Section 17: Earth and planetary science and related fields

| Basic Section | Examples of related research content |
|---|---|
| 17010 | Space and planetary sciences-related<br>Solar-terrestrial physics, Aeronomy, Planetary science, Exoplanetary science, Extraterrestrial material science, etc. |
| 17020 | Atmospheric and hydrospheric sciences-related<br>Climate system, Atmospheric science, Ocean science, Limnology, Glaciology, Paleoclimatology, etc. |
| 17030 | Human geosciences-related<br>Geoenvironmental science, Natural disaster science, Geospatial information science, Quaternary research, Earth resources science, etc. |
| 17040 | Solid earth sciences-related<br>Solid earth geophysics, Geology, Earth's interior material science, Solid earth geochemistry, etc. |
| 17050 | Biogeosciences-related<br>Origin and evolution of life, Extremophile biology, Biogeochemistry, Paleoenvironmental science, Paleontology, etc. |

Attached Table 2

Broad Section C

Medium-sized Section 18: Mechanics of materials, production engineering, design engineering, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 18010 | Mechanics of materials and materials-related |
| | Structural mechanics, Fatigue, Fracture, Biomaterials, Material design, Material characteristics, Material evaluation, etc. |
| 18020 | Manufacturing and production engineering-related |
| | Machining, Non-traditional machining, Ultraprecision machining, Machine tools, Manufacturing systems, Precision metrology, Process planning, etc. |
| 18030 | Design engineering-related |
| | Mechanical design, Product design, Design theory, Design for reliability, Optimal design, Computer-aided design, etc. |
| 18040 | Machine elements and tribology-related |
| | Machine elements, Mechanisms, Tribology, Actuators, Micromachines, etc. |

Medium-sized Section 19: Fluid engineering, thermal engineering, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 19010 | Fluid engineering-related |
| | Fluid machinery, Flow measurement, Computational fluid dynamics, Turbulence, Multiphase flow, Compressible flow, Incompressible flow, etc. |
| 19020 | Thermal engineering-related |
| | Heat transfer, Convection, Combustion, Thermophysical properties, Refrigeration and air-conditioning, Heat engine, Energy conversion, etc. |

Medium-sized Section 20: Mechanical dynamics, robotics, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 20010 | Mechanics and mechatronics-related |
| | Kinematics, Kinetics, Vibration, Acoustics, Automation, Biomechanics, Instrument and control applications, Mechatronics applications, etc. |
| 20020 | Robotics and intelligent system-related |
| | Robotics, Intelligent system, Human mechanical system, Human interface, Planning, Intelligent spatial system, Virtual reality, Augmented reality, etc. |

Medium-sized Section 21: Electrical and electronic engineering and related fields

| Basic Section | Examples of related research content |
|---|---|
| 21010 | Power engineering-related |
| | Electrical energy-related, Energy conservation, Power system engineering, Electric machinery, Power electronics, Effective utilization of electric energy, Electromagnetic compatibility, Wireless power transfer, etc. |
| 21020 | Communication and network engineering-related |
| | Information theory, Nonlinear theory, Signal processing, Communication systems, Modulation/demodulation, Antennas, Networks, Multimedia, Cryptography/security, etc. |
| 21030 | Measurement engineering-related |
| | Measurement theory, Measuring instruments, Applied wave metrology, Measurement systems, Signal processing, Sensing, etc. |
| 21040 | Control and system engineering-related |
| | Control theory, System theory, Control systems, Knowledge-based control systems, System information processing, System control applications, Biosystems engineering, etc. |
| 21050 | Electric and electronic materials-related |
| | Semiconductor, Dielectric materials, Magnetic materials, Organic materials, Superconductor, Composite materials, Thin films, Functional materials, Thick films, Fabrication/characterization methods, etc. |

Attached Table 2

(Broad Section C)

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|---|---|
| 21060 | Electron device and electronic equipment-related |
| | Electron devices, Circuit design, Optical devices, Spintronic devices, Millimeter wave/terahertz wave, Applied wave devices, Storage devices, Displays, Process technology, Implementation technology, etc. |

Medium-sized Section 22: Civil engineering and related fields

| Basic Section | Examples of related research content |
|---|---|
| 22010 | Civil engineering material, execution and construction management-related |
| | Concrete, Steel, Composite material, Wood, Pavement material, Repair and reinforce material, Execution, Maintenance, Construction management, etc. |
| 22020 | Structure engineering and earthquake engineering-related |
| | Applied mechanics, Structure engineering, Steel structure, Concrete structure, Composite structure, Wind engineering, Earthquake engineering, Aseismatic structure, Earthquake prevention, etc. |
| 22030 | Geotechnical engineering-related |
| | Soil mechanics, Foundation engineering, Rock engineering, Engineering geology, Ground behavior, Geotechnical structures, Geo-disaster prevention, Geo-environment, Tunnel engineering, etc. |
| 22040 | Hydroengineering-related |
| | Hydraulics, Environmental hydraulics, Hydrology, River engineering, Water resource engineering, Coastal engineering, Port and harbor engineering, Ocean engineering, etc. |
| 22050 | Civil engineering plan and transportation engineering-related |
| | Civil engineering plan, Regional urban planning, Spatial planning, Disaster prevention plan, Transportation plan, Transportation engineering, Railway engineering, Surveying and remote sensing, Landscape design, Civil engineering history, etc. |
| 22060 | Environmental systems for civil engineering-related |
| | Environment plan, Environmental system, Environment conservation, Water serve and drainage systems, Waste, Water environment, Atmospheric circulation, Noise and vibration, Environment ecology, Environmental monitoring, etc. |

Medium-sized Section 23: Architecture, building engineering, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 23010 | Building structures and materials-related |
| | Load theory, Structural analysis, Structural design, Structures, Earthquake resistant design, Foundation, Geotechnics, Structural material, Maintenance, Building construction method, etc. |
| 23020 | Architectural environment and building equipment-related |
| | Sound environment, Vibration environment, Light environment, Heat environment, Air environment, Environmental psychology/physiology, Building equipment, Fire engineering, Urban environment, Environment design, etc. |
| 23030 | Architectural planning and city planning-related |
| | Planning theory, Design theory, Housing theory, Buildings, Urban/regional planning, Administration, Building economics, Production management, Disaster prevention planning, Landscape, etc. |
| 23040 | Architectural history and design-related |
| | Architectural history, Urban history, Architectural theory, Design, Landscape, Preservation, Renovation, etc. |
| 90010 | Design-related |
| | Information design, Environmental design, Industrial design, Spatial design, Design history, Theory of design, Design standard, Design support, Evaluation of design, Design education, etc. |

Medium-sized Section 24: Aerospace engineering, marine and maritime engineering, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 24010 | Aerospace engineering-related |
| | Thermo-fluid dynamics, Structural mechanics, Propulsion, Aerospace craft design, Production engineering, Aircraft system, Aerodynamics, Spacecraft system, Space utilization, etc. |
| 24020 | Marine engineering-related |
| | Navigation, Structural mechanics, Structural design, Production technology, Marine propulsion, Marine transport, Marine development, Underwater engineering, Polar engineering, Marine environmental technology, etc. |

Attached Table 2

(Broad Section C)

Medium-sized Section 25: Social systems engineering, safety engineering, disaster prevention engineering, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 25010 | Social systems engineering-related<br>Social systems, Industrial engineering, Operations research, Industrial management, Reliability engineering, Policy science, Regulatory science, Quality control, etc. |
| 25020 | Safety engineering-related<br>Safety engineering, Safety system, Risk engineering, Risk management, Work safety, Industrial safety, Product safety, Safety information, Human engineering, Liability engineering, etc. |
| 25030 | Disaster prevention engineering-related<br>Disaster prediction, Hazard map, Building prevention against disaster, Lifeline prevention against disaster, Regional disaster prevention planning, Risk evaluation of disaster, Disaster prevention policy, Disaster resilience, etc. |

Broad Section D

Medium-sized Section 26: Materials engineering and related fields

| Basic Section | Examples of related research content |
|---|---|
| 26010 | Metallic material properties-related<br>Electric and magnetic properties, Metastable states, Diffusion, Phase transformation, Phase diagram, Lattice defect, Mechanical properties, Thermal and optical properties, Materials computational science, Microstructure analysis, etc. |
| 26020 | Inorganic materials and properties-related<br>Functional ceramics, Glass, Engineering ceramics, Carbon-based materials, Crystal structure analysis, Microstructure, Electric properties, Mechanical properties, Physical and chemical properties, Grain boundary, etc. |
| 26030 | Composite materials and interfaces-related<br>Functional composite materials, Structural composite materials, Biocompatible composite materials, Polymer composite, Surface treatment, Bonding and joining, Interface properties, Gradient function, etc. |
| 26040 | Structural materials and functional materials-related<br>Infrastructural materials, Structural materials, Functional materials, Medical welfare materials, Reliability, Sensor materials, Energy materials, Battery materials, Environmental materials, etc. |
| 26050 | Material processing and microstructure control-related<br>Processing and molding, Molding, Weld joining, Crystal microstructure control, Laser processing, Precision processing, Polishing, Powder metallurgy, Coating, Corrosion and protection, etc. |
| 26060 | Metals production and resources production-related<br>Separation and purification, Melting and solidifying, Crystal growth, Casting, Scarce resources substitution, Low environment impact, Recycle, etc. |

Medium-sized Section 27: Chemical engineering and related fields

| Basic Section | Examples of related research content |
|---|---|
| 27010 | Transport phenomena and unit operations-related<br>Phase equilibrium, Transport properties, Fluid-phase unit operation, Adsorption, Membrane separation, Stir mixing, Powder and particle, Crystallization, Film formation, Supercritical, etc. |
| 27020 | Chemical reaction and process system engineering-related<br>Reaction operation, Novel reaction process, Reaction mechanism, Reactor design, Materials synthesis process, Microreactor, Process control, Process system design, Process informatics, etc. |
| 27030 | Catalyst and resource chemical process-related<br>Catalyst preparation, Catalytic function, Energy conversion process, Energy technology, Resources effective utilization technology, Catalytic material, Active site analysis, etc. |

(Broad Section D)

| | |
|---|---|
| 27040 | Biofunction and bioprocess engineering-related |
| | Biocatalyst engineering, Biofunction engineering, Food engineering, Medicochemical engineering, Bioproduction process, Bioreactor, Bioseparation, Biosensor, Biorefinery, etc. |

Medium-sized Section 28: Nano/micro science and related fields

| Basic Section | Examples of related research content |
|---|---|
| 28010 | Nanometer-scale chemistry-related |
| | Nanoparticle chemistry, Mesoscopic chemistry, Nanostructure control, Self-assembly, Nanocarbons, Molecular devices, Nanointerface function, Nanospace function, etc. |
| 28020 | Nanostructural physics-related |
| | Physics in nanoscale materials and structures, Nanoprobes, Quantum dots, Quantum devices, Electron devices, Spin devices, Nano optical device, Nanotribology, Nanocarbon physics, etc. |
| 28030 | Nanomaterials-related |
| | Creation of nanomaterials, Analysis of nanomaterials, Nanosurfaces and nanointerfaces, Functional nanomaterials, Nanoparticles, Carbon nanomaterials, Two-dimensional materials, Nanocrystalline materials, Nanocomposites, Nanofabrication process, etc. |
| 28040 | Nanobioscience-related |
| | Biomolecular devices, Molecular manipulation, Molecular imaging, Nanomeasurements, Nanosynthesis, Single molecule science, Nano-bio interfaces, Biomolecular array, Genome engineering, etc. |
| 28050 | Nano/micro-systems-related |
| | MEMS, NEMS, BioMEMS, Nano/micro-fabrication, Nano/micro-chemical systems, Nano/micro-biosystems, Nano/micro-mechanics, Nano/micro-sensors, etc. |

Medium-sized Section 29: Applied condensed matter physics and related fields

| Basic Section | Examples of related research content |
|---|---|
| 29010 | Applied physical properties-related |
| | Magnetic materials, Superconductors, Dielectrics, Fine particles, Liquid crystals, New functional materials, Molecular electronics, Bioelectronics, Spintronics, etc. |
| 29020 | Thin film/surface and interfacial physical properties-related |
| | Thin-film engineering, Surface and interfacial engineering, Surface science, Vacuum, Measurement, Analysis, Nanoscopic technology, Advanced equipment, Electronics application, etc. |
| 29030 | Applied condensed matter physics-related |
| | Elementary quantities, Standards, Units, Physical quantity measurements and detection, Energy conversion, etc. |

Medium-sized Section 30: Applied physics and engineering and related fields

| Basic Section | Examples of related research content |
|---|---|
| 30010 | Crystal engineering-related |
| | Metal, Semiconductor, Ceramics, Amorphous, Crystal growth, Artificial structures, Device structure, Crystal characterization, Plasma process, etc. |
| 30020 | Optical engineering and photon science-related |
| | Optical materials, Optical elements, Optical properties, Optical information processing, Laser, Optical sensing, Optical recording, Opto-electronics, Nonlinear optics, Quantum optics, etc. |

Medium-sized Section 31: Nuclear engineering, earth resources engineering, energy engineering, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 31010 | Nuclear engineering-related |
| | Reactor physics, Nuclear safety, Thermal-hydraulics and structure, Fuel material, Nuclear chemistry, Nuclear life cycle, Radiation safety, Radiation engineering, Fusion reactor engineering, Nuclear social environment, etc. |

Attached Table 2

(Broad Section D)

| | |
|---|---|
| 31020 | Earth resource engineering, Energy sciences-related |
| | Resource prospecting, Resource development, Resource cycle, Resource economy, Energy system, Environmental load, Renewable energy, Natural resources and energy policy, etc. |

Medium-sized Section 90: Biomedical engineering and related fields

| Basic Section | Examples of related research content |
|---|---|
| 90110 | Biomedical engineering-related |
| | Medical imaging, Medical modeling, Biological simulation, Biometrics, Artificial organs, Tissue engineering, Biophysical properties, Biocontrol, Biomechanics, Nanobio systems, etc. |
| 90120 | Biomaterials-related |
| | Biofunctional materials, Tissue engineering materials, Biocompatible materials, Nanobio materials, Drug delivery systems, Stimuli-sensitive materials, Genetic engineering material, etc. |
| 90130 | Medical systems-related |
| | Medical ultrasound system, Diagnostic imaging system, Laboratory diagnosis systems, Minimally invasive treatment systems, Remote diagnosis and treatment systems, Organ preservation systems, Medical information systems, Computer-assisted surgery, Medical robot, etc. |
| 90140 | Medical technology assessment-related |
| | Regulatory science, Safety evaluation, Clinical study, Medical technology ethics, Medical devices, etc. |
| 90150 | Medical assistive technology-related |
| | Healthcare and rehabilitation engineering, Life assist technology, Care support technology, Accessibility design, Universal design, Rehabilitation and nursing robot, Assist device for artificial internal organ, Rehabilitation devices, Nursing science and engineering, etc. |

Broad Section E

Medium-sized Section 32: Physical chemistry, functional solid state chemistry, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 32010 | Fundamental physical chemistry-related |
| | Gas, Liquid, Solid, Nanomaterials, Bio-related materials, Structure and properties, Chemical reactions, Spectroscopy, Theoretical calculation, Data science, etc. |
| 32020 | Functional solid state chemistry-related |
| | Molecular materials, Inorganic compounds, Hybrid compounds, Colloids, Surface/interface, Electrical properties, Optical properties, Magnetic properties, Energy conversion, Catalysis, etc. |

Medium-sized Section 33: Organic chemistry and related fields

| Basic Section | Examples of related research content |
|---|---|
| 33010 | Structural organic chemistry and physical organic chemistry-related |
| | Chemistry of organic crystals, Molecular recognition, Supermolecules, Functional organic molecules, Extended π-electron molecules, Organoelement chemistry, Reaction mechanism, Molecular chirality, Theoretical organic chemistry, etc. |
| 33020 | Synthetic organic chemistry-related |
| | Development of reactions, Reaction mechanism, Selective reactions, Asymmetric synthesis, Development of catalysts, Biocatalysis, Sustainable organic synthesis, Natural product synthesis, Process chemistry, etc. |

Attached Table 2

(Broad Section E)

Medium-sized Section 34: Inorganic/coordination chemistry, analytical chemistry, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 34010 | Inorganic/coordination chemistry-related |
| | Coordination chemistry, Organometallic chemistry, Inorganic solid-state chemistry, Bioinorganic chemistry, Solution chemistry, Clusters, Supramolecular complexes, Coordination polymers, Typical elements, Physical properties and functions, etc. |
| 34020 | Analytical chemistry-related |
| | Spectrometric analysis, Advanced measurements, Surface/interface analysis, Separation analysis, Analytical reagents, Radiochemical analysis, Electrochemical analysis, Bioanalysis, New analysis methods, etc. |
| 34030 | Green sustainable chemistry and environmental chemistry-related |
| | Green process, Green catalysts, Recycle, Environmental assessment, Environmentally conscious materials, Reduction of environmental load, Environmental restoration, Resource saving, Geochemistry, Environmental radioactivity, etc. |

Medium-sized Section 35: Polymers, organic materials, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 35010 | Polymer chemistry-related |
| | Polymer synthesis, Polymer reactions, Functional polymers, Self-assembled polymers, Non-covalent polymers, Chiral polymers, Bio-related polymers, Polymer properties, Polymer structures, Polymer interface, etc. |
| 35020 | Polymer materials-related |
| | Properties of polymer materials, Synthesis of polymer materials, Functional polymer materials, Environmentally friendly polymer materials, Liquid crystal polymers, Gel, Biopolymers, Polymer composites, Polymer processing, etc. |
| 35030 | Organic functional materials-related |
| | Organic semiconductors, Liquid crystals, Optical materials, Device-related materials, Electrically conductive materials, Hybrid materials, Molecular functional materials, Organic hybrid materials, Materials for energy conversion, etc. |

Medium-sized Section 36: Inorganic materials chemistry, energy-related chemistry, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 36010 | Inorganic compounds and inorganic materials chemistry-related |
| | Crystals, Amorphous, Ceramics, Semiconductors, Inorganic device-related materials, Low-dimensional compounds, Porous materials, Nanoparticles, Multicomponent compounds, Hybrid materials, etc. |
| 36020 | Energy-related chemistry |
| | Energy resources, Energy conversion materials, Energy carriers, Solar energy utilization, Material separation, Catalytic transformation, Battery and electrochemical materials, Energy-saving materials, Renewable energy, Unused energy, etc. |

Medium-sized Section 37: Biomolecular chemistry and related fields

| Basic Section | Examples of related research content |
|---|---|
| 37010 | Bio-related chemistry |
| | Bioorganic chemistry, Bioinorganic chemistry, Biological reaction engineering, Biofunctional chemistry, Biofunctional materials, Biotechnology, etc. |
| 37020 | Chemistry and chemical methodology of biomolecules-related |
| | Natural product chemistry, Biologically active compounds, Molecular mechanism of biological activities, Biofunctional molecules, Combinatorial chemistry, Metabolomic analysis, etc. |
| 37030 | Chemical biology-related |
| | In vivo functional expression, Intracellular chemical reactions, Drug discovery science, Chemical library, Structure-activity relationship, Chemical probes, Biomolecular measurements, Molecular imaging, Proteomics, etc. |

Attached Table 2

Broad Section F

Medium-sized Section 38: Agricultural chemistry and related fields

| Basic Section | Examples of related research content |
|---|---|
| 38010 | Plant nutrition and soil science-related<br>Plant metabolism and physiology, Nutritional elements in plants, Soil classification, Soil physical chemistry, Soil organisms, etc. |
| 38020 | Applied microbiology-related<br>Microbial genetics/breeding, Microbial function, Microbial metabolism and physiology, Microbial applications, Control of microbes, Microbial ecology, Production of useful materials, etc. |
| 38030 | Applied biochemistry-related<br>Cellular biochemistry, Applied biochemistry, Structural biology, Regulation of bioactivity, Metabolism and physiology, Cellular function, Molecular function, Production of useful materials, etc. |
| 38040 | Bioorganic chemistry-related<br>Bioactive substances, Signal molecules, Natural products chemistry, Biosynthesis, Structure-activity relationship, Synthetic organic chemistry, Chemical biology, etc. |
| 38050 | Food sciences-related<br>Food function, Food chemistry, Nutritional chemistry, Food analysis, Food engineering, Food safety, Functional food, Nutritional epidemiology, Clinical nutrition, etc. |
| 38060 | Applied molecular and cellular biology-related<br>Molecular cell biology, Cellular bioengineering, Molecular engineering, Gene expression control, Cell-cell/intermolecular interactions, Cellular function, Production of useful materials, etc. |

Medium-sized Section 39: Agricultural and environmental biology and related fields

| Basic Section | Examples of related research content |
|---|---|
| 39010 | Science in plant genetics and breeding-related<br>Genetic resources, Breeding theories, Genomic breeding, Plants with novel traits, Quality components, Stress tolerance, Yielding ability, Reproduction and multiplication, Growth physiology, Development, etc. |
| 39020 | Crop production science-related<br>Field crops, Crop yield, Crop product quality, Crop morphology, Growth prediction, Crop physiology, Field management, Low-cost cultivation techniques, Environmentally friendly agriculture, Field ecosystem, etc. |
| 39030 | Horticultural science-related<br>Plant growth, flowering, and fruit development, Nursery plant propagation and production, Crop production systems, Cultivation techniques, Protected horticulture, Controlled environment systems, Breeding and development of new cultivars, Quality of horticultural products, Postharvest physiology and management, Socio-horticulture, etc. |
| 39040 | Plant protection science-related<br>Plant pathology, Clinical plant science, Agricultural insect pest, Natural enemy, Weed, Agricultural chemicals, Integrated pest management, etc. |
| 39050 | Insect science-related<br>Sericulture insect technology, Insect genetics, Insect pathology, Insect physiology and biochemistry, Insect ecology, Chemical ecology, Systematics, Symbiosis and parasitism, Social insects, Medical entomology, etc. |
| 39060 | Conservation of biological resources-related<br>Conservation biology, Biodiversity conservation, Conservation of phylogenetic diversity, Genetic resources conservation, Ecosystem conservation, Conservation of microorganisms, Impacts of non-native species, etc. |
| 39070 | Landscape science-related<br>Landscape architecture, Parks and open space planning, Landscape planning, Cultural landscape, Nature conservation, Landscape ecology, Parks and open space management, Parks, Environmental greening, Participatory community design, etc. |

Attached Table 2

(Broad Section F)

Medium-sized Section 40: Forestry and forest products science, applied aquatic science, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 40010 | Forest science-related |
| | Forest ecology, Forest biodiversity, Forest genetics and breeding, Silviculture, Forest protection, Forest environments, Erosion control, Forest utilization, Forest planning, Forest policy, etc. |
| 40020 | Wood science-related |
| | Wood structure, Wood property, Lignocellulose, Trace element, Fungus, Wood processing, Biomass-refinery, Wood based material, Wooden building, Forest products education, etc. |
| 40030 | Aquatic bioproduction science-related |
| | Aquatic environment, Fisheries, Aquatic resource management, Aquatic organisms, Aquatic ecosystem, Aquaculture, Fisheries engineering, Fishing community/fisheries policy, Fisheries economics/management/marketing, Fisheries education, etc. |
| 40040 | Aquatic life science-related |
| | Aquatic nutrition, Aquatic pathology, Aquatic genetics/heredity/breeding, Aquatic physiology, Utilization of aquatic organisms and biomass, Aquatic biological chemistry, Aquatic biotechnology, Aquatic food sciences, etc. |

Medium-sized Section 41: Agricultural economics and rural sociology, agricultural engineering, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 41010 | Agricultural and food economics-related |
| | Food economy, Agricultural production economy, Agricultural policy, Food system, Food marketing, International agricultural development, Trade of agricultural commodities and livestock products, Rural resources and environment, etc. |
| 41020 | Rural sociology and agricultural structure-related |
| | Farm organization, Farm management, Agricultural structure, Agricultural market, Agricultural history, Rural society, Rural life, Agricultural cooperative, etc. |
| 41030 | Rural environmental engineering and planning-related |
| | Irrigation and drainage, Reclamation and conservation of agricultural land, Rural planning, Rural environment, Circulation of resources and energy, Disaster prevention in rural area, Stock management of agricultural infrastructures, Hydrodynamics and hydrology, Soil physics, Design and construction materials, etc. |
| 41040 | Agricultural environmental engineering and agricultural information engineering-related |
| | Agricultural production facilities, Bioproduction machinery, Environmental control, Agricultural meteorology and micrometeorology, Agricultural information, Greenhouse horticulture, Plant factory, Postharvest and supply chain, Nondestructive measurement, Remote sensing and geographic information system, etc. |
| 41050 | Environmental agriculture-related |
| | Biomass, Environmental manipulation, Biodiversity, Environmental analysis, Ecosystem services, Resources circulation system, Low-carbon societies, Life-cycle assessment, Environmental friendly agriculture, Watershed management, etc. |

Medium-sized Section 42: Veterinary medical science, animal science, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 42010 | Animal production science-related |
| | Breeding/genetics, Reproduction, Nutrition/feeding, Anatomy/physiology, Product, Environment, Behavior, Therapy, Grassland, Grazing, etc. |
| 42020 | Veterinary medical science-related |
| | Basic veterinary science, Pathological veterinary science, Applied veterinary science, Clinical veterinary science, Animal nursing, Animal welfare, Wildlife, etc. |
| 42030 | Animal life science-related |
| | Homeostasis, Cellular function, Biological defense, Integrated genetics, Development/differentiation, Biotechnology, etc. |
| 42040 | Laboratory animal science-related |
| | Genetic engineering, Developmental engineering, Animal models of disease, Facility management, Laboratory animal welfare, Laboratory animal-related technology, Bioresource, etc. |

Attached Table 2

Broad Section G

Medium-sized Section 43: Biology at molecular to cellular levels, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 43010 | Molecular biology-related<br>Chromosome function, Chromatin, Epigenetics, Genome maintenance, Genome transmission, Chromosome re-organization, Gene expression, Non-coding RNA, Regulation of protein function, Molecular genetics, Regulation of RNA function, etc. |
| 43020 | Structural biochemistry-related<br>Proteins, Nucleic acids, Lipids, Carbohydrates, Biological membrane, Molecular recognition, Denaturation, Three-dimensional structural analysis, Three-dimensional structural prediction, Molecular dynamics, etc. |
| 43030 | Functional biochemistry-related<br>Enzymes, Sugar chain, Bioenergy conversion, Biological trace elements, Physiologically active substances, Cell signaling, Membrane transport, Proteolysis, Molecular recognition, Organelle, etc. |
| 43040 | Biophysics-related<br>Structure biology, Physical property of biomolecules, Biomembrane, Photobiology, Molecular motor, Biometrics, Bioimaging, Systems biology, Synthetic biology, Theoretical biology, etc. |
| 43050 | Genome biology-related<br>Genome organization, Genome function, Genome diversity, Molecular evolution of genome, Genome repair/maintenance, Trans-omics, Epigenome, Gene resource, Genome dynamics, etc. |
| 43060 | System genome science-related<br>Network analyses, Synthetic biology, Biological databases, Bioinformatics, Genome analysis technology, Genome biotechnology, etc. |

Medium-sized Section 44: Biology at cellular to organismal levels, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 44010 | Cell biology-related<br>Cytoskeleton, Proteolysis, Organelle, Nuclear structure and function, Extracellular matrix, Signal transduction, Cell cycle, Cell motility, Cell-cell interaction, Cellular genetics, etc. |
| 44020 | Developmental biology-related<br>Cell differentiation, Stem cells, Regeneration, Germ layer formation, Morphogenesis, Organogenesis, Fertilization, Germ cells, Developmental genetics, Evolution and development, etc. |
| 44030 | Plant molecular biology and physiology-related<br>Photosynthesis, Growth physiology, Plant development, Organelle, Cell wall, Responses to environment, Plant-microbe interaction, Metabolism, Plant molecular function, etc. |
| 44040 | Morphology and anatomical structure-related<br>Morphology, Comparative morphology, Morphological modeling, Ultrastructure, Morphological image analysis, Tissue organization, Microscopic technology, Imaging, etc. |
| 44050 | Animal physiological chemistry, physiology and behavioral biology-related<br>Metabolic physiology, Neurophysiology, Neuroethology, Behavioral physiology, Animal physiological chemistry, Chronobiology, Comparative physiology, Comparative endocrinology, Behavioral genetics, etc. |

Medium-sized Section 45: Biology at organismal to population levels and anthropology, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 45010 | Genetics-related<br>Molecular genetics, Cellular genetics, Developmental genetics, Behavioral genetics, Population genetics, Quantitative trait, Population genomics, Genome-wide association study, Genetic diversity, Epigenome diversity, etc. |
| 45020 | Evolutionary biology-related<br>Molecular evolution, Evolutionary genetics, Phenotypic evolution, Evolutionary developmental biology, Evolution of ecological traits, Evolution of behaviors, Experimental evolution, Coevolution, Speciation, Evolutionary theory, etc. |

Attached Table 2

(Broad Section G)

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|---|---|
| 45030 | Biodiversity and systematics-related |
| | Taxonomic characters, Taxon, Classification system, Molecular phylogeny, Phyletic evolution, Speciation, Natural history, Biogeography, Rare species conservation, Biodiversity, etc. |
| 45040 | Ecology and environment-related |
| | Chemical ecology, Molecular ecology, Physiological ecology, Evolutionary ecology, Behavioral ecology, Population ecology, Community ecology, Conservation ecology, Biological interactions, Material cycles in ecosystems, etc. |
| 45050 | Physical anthropology-related |
| | Morphology and function, Bioarchaeology, Biological mechanism, Genome, Evolutionary genetics, Behavior, Ecology, Comparative cognition, Primates, Growth and aging, etc. |
| 45060 | Applied anthropology-related |
| | Physiological anthropology, Ergonomics, Forensic anthropology, Medical anthropology, Physiological polymorphisms, Environmental adaptability, Somatic and physiological function, Anthropometry and bioengineering, Lifestyle, etc. |

Medium-sized Section 46: Neuroscience and related fields

| Basic Section | Examples of related research content |
|---|---|
| 46010 | Neuroscience-general-related |
| | Neurochemistry, Neuron, Glia, Genome, Epigenetics, Neurobiology, Information processing, Synapse, Neurogenesis, etc. |
| 46020 | Anatomy and histopathology of nervous system-related |
| | Neural development, Anatomy of nervous system, Neural network structure, Neuropathology, etc. |
| 46030 | Function of nervous system-related |
| | Neurophysiology, Neuropharmacology, Neurotransmission, Neuroinformatics, Behavioral neuroscience, Neural system physiology, Cerebral blood flow, Autonomic nervous system, etc. |

Broad Section H

Medium-sized Section 47: Pharmaceutical sciences and related fields

| Basic Section | Examples of related research content |
|---|---|
| 47010 | Pharmaceutical chemistry and drug development sciences-related |
| | Inorganic chemistry, Organic chemistry, Medicinal chemistry, Medicinal molecular design, Drug discovery, Bio-related materials, Chemical biology, etc. |
| 47020 | Pharmaceutical analytical chemistry and physicochemistry-related |
| | Environmental analysis, Bioanalysis, Physicochemistry, Biophysics, Structural biology, Radiochemistry, Bioimaging, Drug formulation design, Computer science, Information science, etc. |
| 47030 | Pharmaceutical hygiene and biochemistry-related |
| | Environmental hygiene, Healthful nutrition, Disease prevention, Toxicology, Drug metabolism, Host defense, Molecular biology, Cell biology, Biochemistry, etc. |
| 47040 | Pharmacology-related |
| | Pharmacology, Pharmacogenomics, Applied pharmacology, Signal transduction, Drug interactions, Drug response, Pharmacotherapy, Pharmacotoxicology, etc. |
| 47050 | Environmental and natural pharmaceutical resources-related |
| | Environmental resource science, Natural products chemistry, Bioactive natural compounds, Medicinal resources, Medicinal foods, Pharmaceutical microbiology, etc. |
| 47060 | Clinical pharmacy-related |
| | Pharmacokinetics, Medical informatics, Social pharmacy, Clinical pharmacy, Pharmaceutics, Regulatory science, Education for the pharmacist, etc. |

Attached Table 2

(Broad Section H)

Medium-sized Section 48: Biomedical structure and function and related fields

| Basic Section | Examples of related research content |
|---|---|
| 48010 | Anatomy-related<br>Macroscopic anatomy, Histology, Embryology, etc. |
| 48020 | Physiology-related<br>General physiology, Pathophysiology, Comparative physiology, Environmental physiology, etc. |
| 48030 | Pharmacology-related<br>Genomic pharmacology, Molecular and cellular pharmacology, Pathological pharmacology,<br>Behavioral pharmacology, Pharmacology for drug discovery, Clinical pharmacology, etc. |
| 48040 | Medical biochemistry-related<br>Biofunctional molecular and medical biochemistry, Genome medical sciences, Human genetics, Disease model, etc. |

Medium-sized Section 49: Pathology, infection/immunology, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 49010 | Pathological biochemistry-related<br>Molecular pathology, Metabolic disorders, Molecular diagnosis, etc. |
| 49020 | Human pathology-related<br>Molecular pathology, Cyto- and histo-pathology, Diagnostic pathology, etc. |
| 49030 | Experimental pathology-related<br>Disease models, Pathological regulation, Tissue regeneration, etc. |
| 49040 | Parasitology-related<br>Parasite, Vector organism, Parasite pathogenicity, Epidemiology of parasites, Control of parasite infections, etc. |
| 49050 | Bacteriology-related<br>Bacterium, Fungus, Antimicrobial resistance, Bacterial pathogenicity, Epidemiology of bacteria,<br>Control of bacterial infections, etc. |
| 49060 | Virology-related<br>Virus, Prion, Viral pathogenicity, Epidemiology of viruses, Control of viral infections, etc. |
| 49070 | Immunology-related<br>Immune system, Immune response, Inflammation, Immune-related disorder, Immune regulation, etc. |

Broad Section I

Medium-sized Section 50: Oncology and related fields

| Basic Section | Examples of related research content |
|---|---|
| 50010 | Tumor biology-related<br>Cancer and gene, Tumor development, Invasion, Metastasis, Cancer microenvironment,<br>Cancer and signal transduction, Characteristics of cancer cells, Cancer and immune cells, etc. |
| 50020 | Tumor diagnostics and therapeutics-related<br>Genome analysis, Diagnostic markers, Molecule imaging, Chemotherapy, Nucleic acid therapy, Gene therapy,<br>Immunotherapy, Molecular targeted therapy, Physical therapy, Radiation therapy, etc. |

Attached Table 2

(Broad Section I)

Medium-sized Section 51: Brain sciences and related fields

| Basic Section | Examples of related research content |
|---|---|
| 51010 | Basic brain sciences-related |
| | Brain-machine interface, Model animal, Computational brain science, Brain information decoding, Control technologies, Brain imaging, Brain biometrics, etc. |
| 51020 | Cognitive and brain science-related |
| | Social behavior, Communication, Emotion, Decision making, Consciousness, Learning, Neuroeconomics, Neuropsychology, etc. |
| 51030 | Pathophysiologic neuroscience-related |
| | Clinical neuroscience, Dolorology, Sensory impairment, Movement disorder, Neurological disorder, Neurogenesis, Neuroimmunology, Cellular degeneration, Disease model, etc. |

Medium-sized Section 52: General internal medicine and related fields

| Basic Section | Examples of related research content |
|---|---|
| 52010 | General internal medicine-related |
| | Psychosomatic medicine, Laboratory medicine, General practice, Geriatrics, Psychosomatic internal medicine, Oriental medicine, Palliative medicine, etc. |
| 52020 | Neurology-related |
| | Neurology, Neurofunctional imaging, etc. |
| 52030 | Psychiatry-related |
| | Clinical psychiatry, Biological psychiatry, Forensic mental health, etc. |
| 52040 | Radiological sciences-related |
| | Diagnostic radiology, Therapeutic radiology, Radiation biology, Radiological technology, etc. |
| 52050 | Embryonic medicine and pediatrics-related |
| | Fetal medicine, Neonatal medicine, Pediatrics, etc. |

Medium-sized Section 53: Organ-based internal medicine and related fields

| Basic Section | Examples of related research content |
|---|---|
| 53010 | Gastroenterology-related |
| | Upper digestive tract, Lower digestive tract, Liver, Biliary tract, Pancreas, etc. |
| 53020 | Cardiology-related |
| | Ischemic heart disease, Valvular heart disease, Arrhythmia, Cardiomyopathy, Heart failure, Peripheral arterial disease, Arteriosclerosis, Hypertension, etc. |
| 53030 | Respiratory medicine-related |
| | Respiratory medicine, Asthma, Diffusive lung disease, COPD, Lung cancer, Pulmonary hypertension, etc. |
| 53040 | Nephrology-related |
| | Acute renal failure, Chronic kidney disease, Diabetic nephropathy, Hypertension, Aqueous electrolyte metabolism, Artificial dialysis, etc. |
| 53050 | Dermatology-related |
| | Dermatology, Cutaneous immune disease, Cutaneous infection, Cutaneous tumor, etc. |

Attached Table 2

(Broad Section I)

Medium-sized Section 54: Internal medicine of the bio-information integration and related fields

| Basic Section | Examples of related research content |
|---|---|
| 54010 | Hematology and medical oncology-related |
| | Hematological oncology, Medical oncology, Hematological immunology, Anemia, Thrombosis and hemostasis, Chemotherapy, etc. |
| 54020 | Connective tissue disease and allergy-related |
| | Connective tissue disease, Allergy, Clinical immunology, Inflammation, etc. |
| 54030 | Infectious disease medicine-related |
| | Infection diagnostics, Infection therapeutics, Host defense, International infection science, etc. |
| 54040 | Metabolism and endocrinology-related |
| | Energy balance, Glucose metabolism, Lipid metabolism, Purine metabolism, Bone metabolism, Electrolyte balance, Endocrinology, Neuroendocrinology, Reproductive endocrinology, etc. |

Medium-sized Section 55: Surgery of the organs maintaining homeostasis and related fields

| Basic Section | Examples of related research content |
|---|---|
| 55010 | General surgery and pediatric surgery-related |
| | Surgical basic principles, Breast surgery, Endocrine surgery, Pediatric surgery, Transplant surgery, Artificial organs science, Regeneration, Operation support, etc. |
| 55020 | Digestive surgery-related |
| | Upper gastrointestinal surgery, Lower gastrointestinal surgery, Hepatic surgery, Biliary surgery, Pancreatic surgery, etc. |
| 55030 | Cardiovascular surgery-related |
| | Coronary artery surgery, Heart valve surgery, Surgery for myocardial disease, Aortic surgery, Vascular surgery, Congenital heart surgery, etc. |
| 55040 | Respiratory surgery-related |
| | Lung surgery, Mediastinal surgery, Chest wall surgery, Respiratory tract surgery, etc. |
| 55050 | Anesthesiology-related |
| | Anesthesiology, Perioperative management, Pain management, Resuscitology, Palliative medicine, etc. |
| 55060 | Emergency medicine-related |
| | Intensive care medicine, Emergency resuscitation science, Trauma surgery, Disaster medicine, Disaster medical care, etc. |

Medium-sized Section 56: Surgery related to the biological and sensory functions and related fields

| Basic Section | Examples of related research content |
|---|---|
| 56010 | Neurosurgery-related |
| | Neurosurgery, Spine and spinal cord diseases, etc. |
| 56020 | Orthopedics-related |
| | Orthopedics, Rehabilitation medicine, Sports medicine, etc. |
| 56030 | Urology-related |
| | Urology, Male genitalia science, etc. |
| 56040 | Obstetrics and gynecology-related |
| | Obstetrics, Reproductive endocrinology, Gynecologic oncology, Female health care medicine, etc. |

(Broad Section I)

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|---|---|
| 56050 | Otorhinolaryngology-related |
| | Otorhinolaryngology, Head and neck surgery, etc. |
| 56060 | Ophthalmology-related |
| | Ophthalmology, Ophthalmological optics, etc. |
| 56070 | Plastic and reconstructive surgery-related |
| | Plastic surgery, Reconstructive surgery, Aesthetic plastic surgery, etc. |

Medium-sized Section 57: Oral science and related fields

| Basic Section | Examples of related research content |
|---|---|
| 57010 | Oral biological science-related |
| | Oral anatomy, Oral histology and embryology, Oral physiology, Oral biochemistry, Pharmacology for hard tissues, etc. |
| 57020 | Oral pathobiological science-related |
| | Oral infectious diseases, Oral pathology, Oral experimental oncology, Immunity and inflammation, Laboratory medicine, etc. |
| 57030 | Conservative dentistry-related |
| | Operative dentistry, Endodontology, Periodontology, etc. |
| 57040 | Regenerative dentistry and dental engineering-related |
| | Regenerative dentistry, Biomaterial science, Dental materials science, Oral and maxillofacial prosthetics, Oral implantology, etc. |
| 57050 | Prosthodontics-related |
| | Prosthodontics, Oral rehabilitation, Gerodontology, etc. |
| 57060 | Surgical dentistry-related |
| | Oral and maxillofacial surgery, Oral maxillofacial reconstructive surgery, Dental anesthesiology, Psychosomatic medicine dentistry, Dental radiology, etc. |
| 57070 | Developmental dentistry-related |
| | Orthodontics, Pediatric dentistry, etc. |
| 57080 | Social dentistry-related |
| | Dental hygiene, Preventive dentistry, Oral health administration and management, Dental education, Forensic odontology, etc. |

Medium-sized Section 58: Society medicine, nursing, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 58010 | Medical management and medical sociology-related |
| | Medical management, Medical social science, Ethics for medical science, Ethics for medical care, Biomedical education, History of medical science, Health policy and economics, Clinical trials, Health and medical services administration, Disaster medical science, etc. |
| 58020 | Hygiene and public health-related: including laboratory approach |
| | Hygiene, Public health, Epidemiology, Global health, etc. |
| 58030 | Hygiene and public health-related: excluding laboratory approach |
| | Hygiene, Public health, Epidemiology, Global health, etc. |
| 58040 | Forensics medicine-related |
| | Forensic medicine, Forensic pathology, Forensic toxicology, Forensic genetics, Suicide, Abuse, Clinical forensic medicine, Sudden death, etc. |

Attached Table 2

(Broad Section I)

| Basic Section | Examples of related research content |
|---|---|
| 58050 | Fundamental of nursing-related |
| | Fundamental of nursing, Nursing education, Nursing administration, Nursing ethics, Global nursing, etc. |
| 58060 | Clinical nursing-related |
| | Critical care and emergency nursing, Perioperative nursing, Nursing of chronic illness, Oncology nursing, Psychiatric nursing, Palliative care nursing, etc. |
| 58070 | Lifelong developmental nursing-related |
| | Women's health nursing, Maternal nursing, Midwifery, Family health nursing, Child health nursing, School nursing, etc. |
| 58080 | Gerontological nursing and community health nursing-related |
| | Gerontological nursing, Community health nursing, Public health nursing, Disaster nursing, Home care nursing, etc. |

Medium-sized Section 59: Sports sciences, physical education, health sciences, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 59010 | Rehabilitation science-related |
| | Rehabilitation medicine, Rehabilitation nursing, Rehabilitation medical care, Physicotherapeutics, Occupational therapy, Assistive technology, Speech and language therapy, etc. |
| 59020 | Sports sciences-related |
| | Sports physiology, Sports biochemistry, Sports medicine, Sports sociology, Sports management, Sports psychology, Sports education, Training science, Sports biomechanics, Adapted sports science, etc. |
| 59030 | Physical education, and physical and health education-related |
| | Growth developmental science, Physical and health education, Physical education in school, Educational physiology, Physical systems science, Higher brain function science, Martial arts theory, Outdoor education, etc. |
| 59040 | Nutrition science and health science-related |
| | Nutritional physiology, Nutritional biochemistry, Nutritional education, Clinical nutrition, Functional food, Lifestyle-related disease, Health promotion, Aging, etc. |

Medium-sized Section 90: Biomedical engineering and related fields

| Basic Section | Examples of related research content |
|---|---|
| 90110 | Biomedical engineering-related |
| | Medical imaging, Medical modeling, Biological simulation, Biometrics, Artificial organs, Tissue engineering, Biophysical properties, Biocontrol, Biomechanics, Nanobio systems, etc. |
| 90120 | Biomaterials-related |
| | Biofunctional materials, Tissue engineering materials, Biocompatible materials, Nanobio materials, Drug delivery systems, Stimuli-sensitive materials, Genetic engineering material, etc. |
| 90130 | Medical systems-related |
| | Medical ultrasound system, Diagnostic imaging system, Laboratory diagnosis systems, Minimally invasive treatment systems, Remote diagnosis and treatment systems, Organ preservation systems, Medical information systems, Computer-assisted surgery, Medical robot, etc. |
| 90140 | Medical technology assessment-related |
| | Regulatory science, Safety evaluation, Clinical study, Medical technology ethics, Medical devices, etc. |
| 90150 | Medical assistive technology-related |
| | Healthcare and rehabilitation engineering, Life assist technology, Care support technology, Accessibility design, Universal design, Rehabilitation and nursing robot, Assist device for artificial internal organ, Rehabilitation devices, Nursing science and engineering, etc. |

Attached Table 2

Broad Section J

Medium-sized Section 60: Information science, computer engineering, and related fields

| Basic Section | Examples of related research content |
|---|---|
| 60010 | Theory of informatics-related<br>Discrete structure, Mathematical logic, Theory of computation, Mathematical theory of programs, Computational complexity theory, Algorithm theory, Information theory, Coding theory, Theory of cryptography, Learning theory, etc. |
| 60020 | Mathematical informatics-related<br>Optimization theory, Mathematical systems theory, System control theory, System analysis, System methodology, System modeling, System simulation, Combinatorial optimization, Queueing theory, Mathematical finance, etc. |
| 60030 | Statistical science-related<br>Statistics, Data science, Modeling, Statistical inference, Multivariate analysis, Time series analysis, Statistical quality control, Applied statistics, etc. |
| 60040 | Computer system-related<br>Computer architecture, Circuit and system, LSI design, LSI testing, Reconfigurable system, Dependable architecture, Low power technology, Hardware/software codesign, Embedded system, etc. |
| 60050 | Software-related<br>Programming language, Programming methodology, Operating system, Parallel and distributed computing, Software engineering, Virtualization technology, Cloud computing, Software dependability, Software security, etc. |
| 60060 | Information network-related<br>Network architecture, Network protocol, Internet, Mobile network, Pervasive computing, Sensor network, IoT, Traffic engineering, Network management, Service platform technology, etc. |
| 60070 | Information security-related<br>Cryptography, Tamper resistance technology, Authentication, Biometrics, Access control, Malware countermeasure, Countermeasures against cyber attacks, Privacy protection, Digital forensics, Security evaluation and authorization, etc. |
| 60080 | Database-related<br>Data model, Database system, Multimedia database, Information retrieval, Content management, Metadata, Big data, Geographic information system, etc. |
| 60090 | High performance computing-related<br>Parallel processing, Distributed processing, Cloud computing, Numerical analysis, Visualization, Computer graphics, High performance computing application, etc. |
| 60100 | Computational science-related<br>Mathematical engineering, Computational mechanics, Numerical simulation, Multi-scale modeling, Large-scale computing, Massively parallel computing, Numerical computing methods, Advanced algorithms, etc. |

Medium-sized Section 61: Human informatics and related fields

| Basic Section | Examples of related research content |
|---|---|
| 61010 | Perceptual information processing-related<br>Pattern recognition, Image processing, Computer vision, Visual media processing, Acoustic media processing, Media editing, Media database, Sensing, Sensor fusion, etc. |
| 61020 | Human interface and interaction-related<br>Human interface, Multi-modal interface, Human-computer interaction, Computer supported cooperative work, Virtual reality, Augmented reality, Realistic communication, Wearable device, Usability, Ergonomics, etc. |
| 61030 | Intelligent informatics-related<br>Search, Inference, Machine learning, Knowledge acquisition, Intelligent system, Intelligent information processing, Natural language processing, Data mining, Ontology, Agent system, etc. |
| 61040 | Soft computing-related<br>Neural network, Evolutionary computation, Fuzzy theory, Chaos, Complex systems, Probabilistic information processing, etc. |
| 61050 | Intelligent robotics-related<br>Intelligent robot, Behavior and environment recognition, Planning, Sensory behavior system, Autonomous system, Digital human, Real world information processing, Physical agents, Intelligent space, etc. |

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| (Broad Section J) | | 61060 | Kansei informatics-related |
| | | | Kansei design, Kansei cognitive science, Kansei psychology, Kansei robotics, Kansei measurement evaluation, Kansei interface, Kansei physiology, Kansei material science, Kansei pedagogy, Kansei brain science, etc. |
| | | 90010 | Design-related |
| | | | Information design, Environmental design, Industrial design, Spatial design, Design history, Theory of design, Design standard, Design support, Evaluation of design, Design education, etc. |
| | | 90030 | Cognitive science-related |
| | | | Cognitive science in general, Cognitive models, Kansei, Human factors, Cognitive and brain science, Comparative cognition, Cognitive linguistics, Cognitive engineering, etc. |
| | Medium-sized Section 62 : Applied informatics and related fields | | |
| | | Basic Section | Examples of related research content |
| | | 62010 | Life, health and medical informatics-related |
| | | | Bioinformatics, Life informatics, Biological information, Neuroinformatics, Neural information processing, Molecular computing, DNA computing, Medical information, Health information, Medical image, etc. |
| | | 62020 | Web informatics and service informatics-related |
| | | | Web system, Semantic web, Web mining, Social network analysis, Service engineering, Educational service, Medical service, Welfare service, Social service, Information culture, etc. |
| | | 62030 | Learning support system-related |
| | | | Media literacy, Learning media, Social media, Learning content, Learning management, Learning support, Remote learning, e-Learning, etc. |
| | | 62040 | Entertainment and game informatics-related |
| | | | Music information processing, 3D content, Animation, Game programming, Network entertainment, Media art, Digital museum, Experience design, etc. |
| | | 90020 | Library and information science, humanistic and social informatics-related |
| | | | Library science, Information services, Information organizing, Information retrieval, Bibliometrics, Information resources, Information ethics, Digital humanities, Social Informatics, Digital archives, etc. |
| Broad Section K | | | |
| | Medium-sized Section 63 : Environmental analyses and evaluation and related fields | | |
| | | Basic Section | Examples of related research content |
| | | 63010 | Environmental dynamic analysis-related |
| | | | Global warming, Environmental change, Water and material cycle, Ocean, Land, Polar regions, Environmental measurements, Environmental model, Environmental information, Remote sensing, etc. |
| | | 63020 | Radiation influence-related |
| | | | Radiation, Measurement, Control, Repair, Biological effects, Risk, etc. |
| | | 63030 | Chemical substance influence on environment-related |
| | | | Toxicology, Toxic substance to human, Trace chemical substance, Endocrine disruptor, Repair, etc. |
| | | 63040 | Environmental impact assessment-related |
| | | | Atmosphere, Hydrosphere, Terrestrial impact, Impact assessment on human health, Social and economic impacts, Impact assessment on the future generation, Environmental impact assessment, Assessment methods, Monitoring, Simulation, etc. |
| | Medium-sized Section 64 : Environmental conservation measure and related fields | | |
| | | Basic Section | Examples of related research content |
| | | 64010 | Environmental load and risk assessment-related |
| | | | Environmental analysis, Environmental load analysis, Environmental monitoring, Pollution dynamics assessment, Evaluation of radioactive substances dynamics, Environmental modeling, Exposure assessment, Toxicity evaluation, Environmental assessment, Chemical substance management, etc. |

Attached Table 2

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| (Broad Section K) | | 64020 | Environmental load reduction and remediation-related |
| | | | Removal of contamination, Treatment of waste material, Control of contamination source, Disposal of waste material, Environmental load reduction, Remediation measure of contamination, Noise and vibration reduction, Countermeasure of ground settlement, Bioremediation, Radioactive decontamination, etc. |
| | | 64030 | Environmental materials and recycle technology-related |
| | | | Recycle materials, Valuable materials recovery, Separation, refining and purification, Environment-conscious design, Recycle chemistry, Green production, Zero emission, Resource circulation, Renewable energy, Biomass utilization, etc. |
| | | 64040 | Social-ecological systems-related |
| | | | Biodiversity, Conservation biology, Natural capital, Impact of climate change, Impact analysis on ecosystem, Ecosystem management, Ecosystem restoration, Ecosystem services, Natural tourism resources, Regional environmental planning, etc. |
| | | 64050 | Sound material-cycle social systems-related |
| | | | Sound material-cycle systems, Material and energy budget analysis, Low carbon society, Unused energy, Regional revitalization, Water use system, Industrial symbiosis, Life cycle assessment (LCA), Integrated environmental management, 3R (reduction, reuse, recycle) social systems, etc. |
| | | 64060 | Environmental policy and social systems-related |
| | | | Environmental philosophy and ethics, Environmental laws, Environmental economics, Environmental information, Environmental education, Environmental activities, Environmental management and governance, Social and public system, Consensus forming, Sustainable development, etc. |

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

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

# VI. 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 Division Ⅲ, Research Program Department, Japan Society for the Promotion of Science
Telephone: 03-3263-4927

* Available every day except Saturdays, Sundays, National Holidays, the New Year Holidays (from December 29 to 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 to January 3)

**(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 Saturdays, Sundays, National Holidays and the New Year Holidays (from December 29 to 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 use of support by Platform formed by “Foundation of Scientific Research Support”**

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

**(7) For matters related to "the National Bioscience Database":**
National Bioscience Database Center, Japan Science and Technology Agency (JST)
Telephone: 03-5214-8491

**(8) For matters related to the "Inter-University Bio-Backup Project":**
Executive Office, IBBP Center, National Institute for Basic Biology, Inter-University Research Institute Corporation National Institutes of Natural Sciences
Telephone: 0564-59-5930, 5931

**(9) For matters related to the "National BioResource Project":**
National BioResource Project (NBRP) Executive Office
(established in the Research Organization for Information and Systems, National Institute of Genetics)
Telephone: 055-981-6809

**(10) For matters related to the "researchmap":**
Service Support Center (in charge of the researchmap), Department of Information Infrastructure, National Institute of Advanced Industrial Science and Technology (JST)

Web inquiry form: https:/researchmap.jp/public/inquiry/

**(11) For matters related to the "Security Export Control Policy":**
Security Export Control Administration Division, Trade Control Department, Trade and Economic Cooperation Bureau, Ministry of Economy, Trade and Industry
Telephone: 03-3501-2800

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

JSPS's website on Grants-in-Aid for Scientific Research
URL：https://www.jsps.go.jp/j-grantsinaid/35_kokusai/04_renkei/koubo.html
[Japanese]
URL：https://www.jsps.go.jp/english/e-grants/grants09_itn_collab.html
[English]