



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

FY2014

Specially Promoted Research,  
Scientific Research (S/A/B/C),  
Challenging Exploratory Research,  
and  
Grant-in-Aid for Young Scientists (A/B)

September 1, 2013

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

## **Introduction**

The current round of call for proposals lists the necessary procedures and other matters for the Details of the Call for Proposals or Application of the Grants-in-Aid for Scientific Research-KAKENHI- for FY2014 “Specially Promoted Research, Scientific Research (S/A/B/C), Challenging Exploratory Research, Grant-in-Aid for Young Scientists (A/B)”

It consists of:

- I Outline of the Grants-in-Aid for Scientific Research**
- II Details of the Call for Proposals**
- III Instructions & Procedures for those Intending to Apply**
- IV Instructions & Procedures for those Who Have Already Been Accepted**
- V Instructions & Procedures for Staff of the Research Institution**

Among these, are listed in the “II Details of the Call for Proposals”: Eligible Candidates for the Research Categories for which a Call for Proposals is Organized; Total budget provided and Research period and other matters; and Schedule from Application to Receipt of Funding and other issues.

In addition, in “III Instructions & Procedures for those Intending to Apply”, “IV Instructions & Procedures for those Who Have Already Been Accepted” and “V Instructions & Procedures for Staff of the Research Institution” are listed: “Conditions for Applying”, “Necessary Procedures”, and other matters, for those who are eligible to apply. Individuals to whom it may concern are requested to make sure that they verify the relevant parts of the text.

The current round of call for proposals opens before the finalization of the budget for FY2014 in order to enable researchers to proceed with their preparations for the screening early, so that they can start their research as soon as possible.

Therefore, please be aware in advance that, depending on the situation regarding the overall budget, details like resources to be allocated and other matters may be subject to change at a later stage.

Moreover, the major changes for FY2014 are as follows.

**<The major changes for FY2014>**

**① “Generative Research Fields” has been newly established as a screening division for Scientific Research (B) and Scientific Research (C).**

“Generative Research Fields” is a screening division that is newly and separately established from the “List of Categories, Areas, Disciplines and Research Fields” (included in the Attached Tables), which is the classification table of the desired areas for screening.

Important areas that have been left unexplored, areas that arise due to the rapid progress of technology, and areas that are expected to emerge from cross-sectoral research are eligible. Based on the demands of the scientific community, the newest scientific trends, and other matters, the Research Center for Science Systems of JSPS proposes candidate areas. These areas are established in the Research Grant Screening Section of the Section Meeting for Science of the Academic Deliberation Council for Science and Technology of the Ministry of Education, Culture, Sports, Science and Technology (MEXT).

In the call for proposals of FY2014, the following three areas have been established.

- Neo-Gerontology
- Mathematical Sciences in Search of New Cooperation
- Food Cycle Research

**② The “List of Categories, Areas, Disciplines and Research Fields” has been partially revised.**

As a result of deliberation in the Research Grant Screening Section of the Section Meeting for Science of the Academic Deliberation Council for Science and Technology of the Ministry of Education, Culture, Sports, Science and Technology (MEXT), the list has been revised as follows.

- 1) The “Integrated Humanities and Social Sciences” Area
  - The discipline “Tourism Studies”, research field “Tourism Studies” has been added.
- 2) The “Medicine, Dentistry, and Pharmacy” Area
  - The discipline “Boundary Medicine”, research field “Medical Physics and Radiation Technology” has been added.

※ Besides the addition of the above-mentioned research fields, a revision of keywords and a division based on keywords have been carried out.

**③The restrictions regarding application for KAKENHI by JSPS Fellows (SPD, PD, or RPD) have been relaxed.**

JSPS Research Fellows (SPD, PD, or RPD) cannot apply for KAKENHI research categories other than Grant-in-Aid for JSPS Fellows. However, this issue has been discussed in the KAKENHI Section of the Section Meeting for Science of the Academic Deliberation Council for Science and Technology of the Ministry of Education, Culture, Sports, Science and Technology (MEXT). In the case where JSPS Research Fellows (SPD, PD, or RPD) have become eligible in their host research institution, it is possible for them to apply for the research categories listed below from FY2014 on.

- Publicly invited research of Scientific Research on Innovative Areas (Research in a proposed research area)
- Scientific Research (B/C)
- Challenging Exploratory Research
- Grant-in-Aid for Young Scientists (A/B)

# Table of Contents

## **I. Outline of the Grants-in-Aid for Scientific Research - KAKENHI .....1**

1. Purpose and Character of Grants-in-Aid for Scientific Research - KAKENHI
2. Research Categories
3. The Relationship between MEXT and JSPS
4. Rules Relating to KAKENHI
5. “Guidelines on the Proper Implementation of Competitive Funding” and Other Matters
  - (1) Eliminate Unreasonable Reduplication and Excessive Concentration
  - (2) Dealing with Fraudulent Use, Fraudulently Received Grants or Fraudulent Acts Committed During the Research
6. On the Promotion of the ‘Dialogue on Science and Technology with Citizens’ (A Basic Course of Action)
7. Cooperation with the National Bioscience Database Center
8. On the Inter-University Bio-Backup Project

## **II. Details of the Call for Proposals ..... 16**

1. Research Categories for which a Call for Proposals is Organized
2. Schedule from Application to Receipt of Funding
  - (1) Procedures that need to be completed prior to the deadline for the submission of the application documents
  - (2) Schedule after the Submission of the Application Documents (plan)
3. Details of Each Research Category
  - 1) Specially Promoted Research: KAKENHI (Series of Single-year Grants)
  - 2) Scientific Research (S): KAKENHI (Series of Single-year Grants)
  - 3) Scientific Research (A/B/C):
    - Scientific Research (A): KAKENHI (Series of Single-year Grants)
    - Scientific Research (B): KAKENHI (Series of Single-year Grants) and KAKENHI (Multi-year Fund)
    - Scientific Research (C): KAKENHI (Multi-year Fund)
  - 4) Challenging Exploratory Research: KAKENHI (Multi-year Fund)
  - 5) Grant-in-Aid for Young Scientists (A/B)
    - Grant-in-Aid for Young Scientists (A): KAKENHI (Series of Single-year Grants) and KAKENHI (Multi-year Fund)
    - Grant-in-Aid for Young Scientists (B): KAKENHI (Multi-year Fund)

## **III. Instructions & Procedures for those Intending to Apply ..... 25**

1. Procedures to be Completed Prior to the Application
  - (1) Verification of the Eligibility to Apply
  - (2) Verification of the Registration of the Researcher Information in e-Rad
  - (3) Obtaining an ID and a Password to Use the Electronic Application System
2. Verification of the Restrictions on Duplication
  - (1) Restrictions on Duplication in the Basic Policy

- (2) Restrictions on Duplicate Applications
- (3) Restriction Rules on the Receiving of Grants
- (4) Other Important Points
- (5) Special cases in the restrictions on duplicate applications
  - (Application for a grant for the fiscal year before the final fiscal year of a research project)
  - (Handling of Restrictions on Duplicate Applications Brought About by an Extension of the Research Period)

**Attached Table 1 Table of Restrictions on Duplication .....37**

**3. Preparing the Application (Proposal for Grant-in-Aid) and Submitting the Application (Proposal for Grant-in-Aid)**

- (1) Preparing the proposal for Grant-in-Aid
  - On the Proposal for Grant-in-Aid
- (2) Application via the Electronic Application System
  - Issues that Need to Be Considered When Preparing the Proposal for Grant-in-Aid
    - 1) Whether or not it is an Ineligible Research Project
    - 2) Whether the following requirements are met for the Project Members
    - 3) Whether the following requirements are met for the Budget
    - 4) When applying, the applicant should select a desired area for screening as follows

**Attached Table 2 List of Categories, Areas, Disciplines and Research Fields .....55**

- 1. Grants-in-Aid for Scientific Research FY2014 List of Categories, Areas, Disciplines and Research Fields
- 2. Grants-in-Aid for Scientific Research FY2014 List of Categories, Areas, Disciplines and Research Fields (○ List of Disciplines and Research Fields with a Time Limit)

**Attached Table 3 Appendix Table of Keywords “Categories, Areas, Disciplines and Research Fields” .....62**

**Attached Table 4 Generative Research Fields  
(○ Fields Designated for FY2014 Recruitment) .....99**

**IV. Instructions & Procedures for those Who Have Already Been Accepted ...101**

- 1. On the handling of research projects that are scheduled to be continued in FY2014
  - (1) Specially Promoted Research
  - (2) Research categories except Specially Promoted Research
- 2. On the Handling of Continued Research Projects in Which the Principal Investigator Has Failed to Submit the Report on the Research Achievements

**V. Instructions & Procedures for Staff of the Research Institution .....104**

- 1. 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”
  - (2) Verification of the Eligibility to Apply of the Affiliated Researcher
  - (3) Registration of the Researcher Information in e-Rad
  - (4) Verification of the ID and the Password of the Researcher Belonging to the Research Institution
  - (5) Submission of a “Self-Assessment Checklist on the Improvement of the System and Other

Matters”, based on the “Guidelines on the Management and Audit of Public Research Funds at Research Institutions (Implementation Standards)”

- (6) On the Submission of the Report on the Research Achievements
- (7) Obtaining Sufficient Knowledge about the Contents of the Application Procedures
- 2. Issues that Need to Be Verified When Compiling the Application Forms (Preparing the Proposal for Grant-in-Aid)
  - (1) Verification of the Eligibility to Apply
  - (2) Verification of the Registration of the Researcher Information in e-Rad
  - (3) Verification of the Principal Investigator
  - (4) Verification of the Written Consent of the Co-Investigator (*kenkyū-buntansha*)
  - (5) Verification of the Application Forms
- 3. Submission and other matters of the Application Forms (Preparing the Proposal for Grant-in-Aid)
  - Outline of the Electronic Application Procedures

**(Reference 1) Screening Panels and Other Matters .....118**

- 1. Screening Methods, and Other Matters
- 2. Notification of the Screening Results

**(Reference 2) Procedures on the Handling of Grants-in-Aid for Scientific Research .....pre**

**(Reference3) Procedures on the Handling of JSPS Grants-in-Aid for Scientific Research (KAKENHI (Series of Single-year Grants)) .....pre**

**(Reference4) Procedures on the Handling of JSPS Grants-in-Aid for Scientific Research (KAKENHI (Multi-year Fund)) .....pre**

**(Reference 5) State of Allocation of Grants-in-Aid for Scientific Research for FY2013 and Other Matters .....pre**

- 1. State of Allocation of Grants-in-Aid for Scientific Research for FY2013
- 2. Changes in Budgets and Other Information

**Inquiries .....pre**

## References

The Supplementary Volume has the following contents. Please use it for reference.

Supplementary Volume

Application Procedures for Grants-in-Aid for Scientific Research-KAKENHI- for FY2014 (Specially Promoted Research, Scientific Research (S/A/B/C), Challenging Exploratory Research, Grant-in-Aid for Young Scientists (A/B)) (Application Forms and Data Entry)

### 1. Proposal for grant-in-aid

#### (1) Specially Promoted Research

Procedures for preparing and data entry of proposal for grant-in-aid (new)

First Half, application information (Items to be filled in on the form on the website)

Application information (Items to be filled in on the form on the website) (screenshot)

Second Half, Files with Project Description

Output image of the application information (Items to be filled in on the form on the website)

(Files with Project Description) Form S-1-1 (1): Proposal for grant-in-aid “Specially Promoted Research” (English version)

(Files with Project Description) Form S-1-1 (2): Proposal for grant-in-aid “Specially Promoted Research” (Japanese version)

Procedures for preparing and data entry of proposal for grant-in-aid (continued)

First Half, application information (Items to be filled in on the form on the website)

Application information (Items to be filled in on the form on the website) (screenshot)

Second Half, Files with Project Description

Output image of the application information (Items to be filled in on the form on the website)

(Files with Project Description) Form S-1-2: Proposal for grant-in-aid “Specially Promoted Research” (continued)

#### (2) Scientific Research (S/A/B/C), Challenging Exploratory Research and Grant-in-Aid for Young Scientists (A/B)

First Half, application information (Items to be filled in on the form on the website)

Application information (Items to be filled in on the form on the website) (Scientific Research



(S/A/B/C), Challenging Exploratory Research and Grant-in-Aid for Young Scientists (A/B))

Application information (Items to be filled in on the form on the website) (screenshot)

Second Half, Files with Project Description

Scientific Research (S) (new)

Procedures for preparation and data entry of proposal for grant-in-aid

Output image of the application information (Items to be filled in on the form on the website)

(Files with Project Description) Form S-1-6: Proposal for grant-in-aid “Scientific Research (S)” (new)

Scientific Research (A/B) (General) (new)

Procedures for preparation and data entry of proposal for grant-in-aid

Output image of the application information (Items to be filled in on the form on the website)

(Files with Project Description) Form S-1-7: Proposal for grant-in-aid “Scientific Research (A/B) (General)” (new)

Scientific Research (C) (General) (new)

Procedures for preparation and data entry of proposal for grant-in-aid

Output image of the application information (Items to be filled in on the form on the website)

(Files with Project Description) Form S-1-8: Proposal for grant-in-aid “Scientific Research (C) (General)” (new)

Scientific Research (A/B) (Overseas Academic Research) (new)

Procedures for preparation and data entry of proposal for grant-in-aid

Output image of the application information (Items to be filled in on the form on the website)

(Files with Project Description) Form S-1-9: Proposal for grant-in-aid “Scientific Research (A/B) (Overseas Academic Research)” (new)

Scientific Research (B) (Generative Research Fields) (new)

Procedures for preparation and data entry of proposal for grant-in-aid

Output image of the application information (Items to be filled in on the form on the website)

(Files with Project Description) Form T-1-1: Proposal for grant-in-aid “Scientific Research (B) (Generative Research Fields)” (new)

Scientific Research (C) (Generative Research Fields) (new)

Procedures for preparation and data entry of proposal for grant-in-aid

Output image of the application information (Items to be filled in on the form on the website)

(Files with Project Description) Form T-1-2: Proposal for grant-in-aid “Scientific Research (C) (Generative Research Fields)” (new)

Challenging Exploratory Research (new)

Procedures for preparation and data entry of proposal for grant-in-aid

Output image of the application information (Items to be filled in on the form on the website)

(Files with Project Description) Form S-1-10: Proposal for grant-in-aid “Challenging Exploratory

Grant-in-Aid for Young Scientists (A) (new)

Procedures for preparation and data entry of proposal for grant-in-aid

Output image of the application information (Items to be filled in on the form on the website)

(Files with Project Description) Form S-1-12: Proposal for grant-in-aid “Grant-in-Aid for Young Scientists (A)” (new)

Grant-in-Aid for Young Scientists (B) (new)

Procedures for preparation and data entry of proposal for grant-in-aid

Output image of the application information (Items to be filled in on the form on the website)

(Files with Project Description) Form S-1-13: Proposal for grant-in-aid “Grant-in-Aid for Young Scientists (B)” (new)

Grant-in-aid (continued)

Procedures for preparation and data entry of proposal for grant-in-aid

Output image of the application information (Items to be filled in on the form on the website)

(Files with Project Description) Form S-1-14: Proposal for grant-in-aid (continued)

## **2. Written consent of the Co-Investigator (*kenkyū-buntansha*)**

Form C-11, F-11, and Z-11 (common): Written consent of the Co-Investigator (*kenkyū-buntansha*) (for other institution)

Form C-12, F-12, and Z-12 (common): Written consent of the Co-Investigator (*kenkyū-buntansha*) (for same institution)

## **3. Notice of Completion of Grant-Aided Project**

KAKENHI (Series of Single-year Grants)

Form U-1-1: Notice of Completion of Project Funded for FY2013

KAKENHI (Multi-year Fund)

Form U-1-2: Notice of Completion of Project Funded

KAKENHI (Partial Multi-year Fund)

Form U-1-3: Notice of Completion of Project Funded for FY2013

※ The “Files with Project Description” forms can be downloaded from the JSPS website (cf. URL below).

(URL)

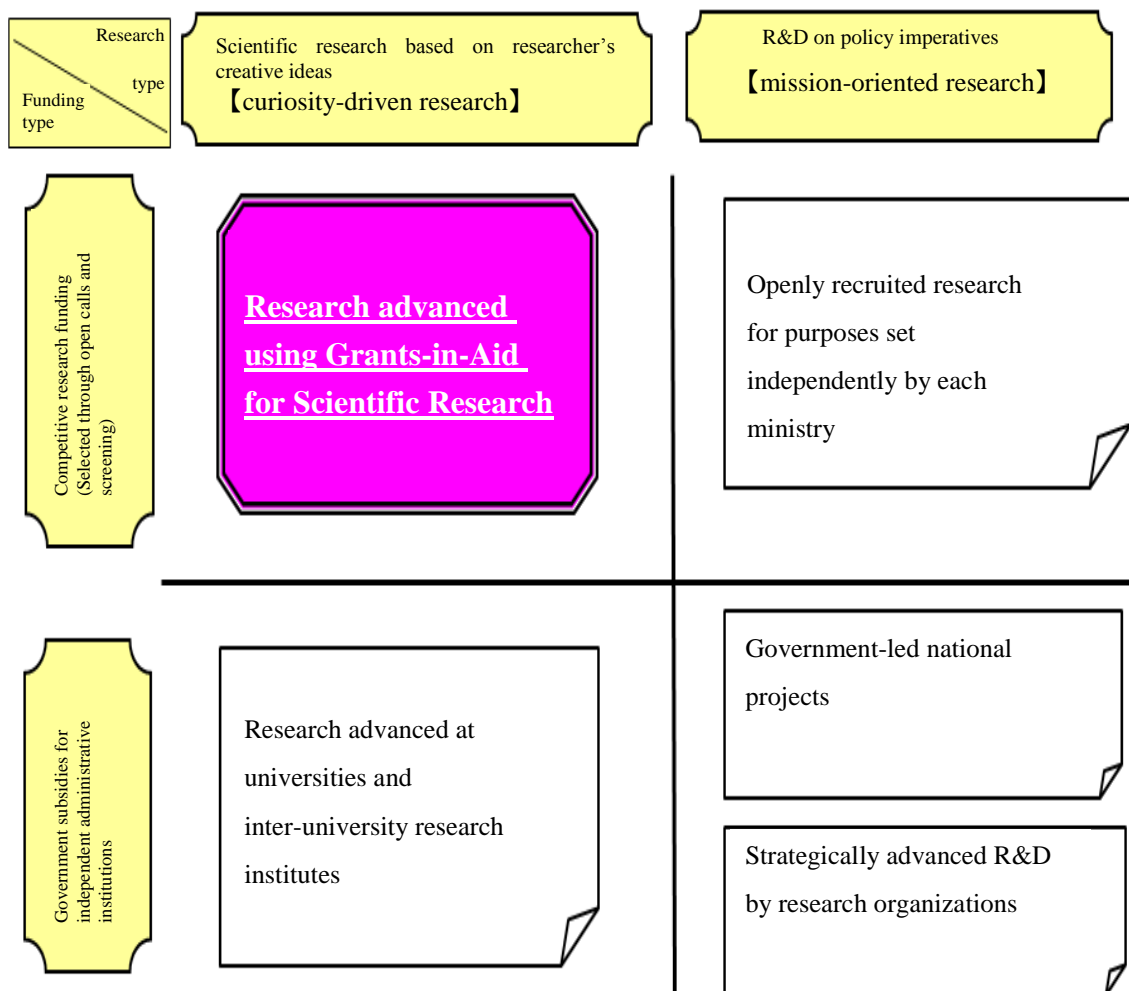
<http://www.jsps.go.jp/j-grantsinaid/index.html>

# 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 are competitive funds that are intended to significantly develop all scientific research (research based on the free ideas of the researcher), from basic to applied research in all fields, ranging from the humanities and the social sciences to the 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 using a peer-review screening process (screening by multiple researchers whose field of specialization is close to that of the applicant).

### The position of “KAKENHI” in the policy on the promotion of science, technology and scientific research in Japan



## 2. Research Categories

Depending on the content and the scale of the research, different research categories have been established.

Research categories, etc.	Purposes and description of the research category
Grants-in-Aid for Scientific Research	
Grant-in-Aid for Specially Promoted Research	Highly regarded research in the international arena that is likely to yield highly acclaimed research achievements and is done <u>by one researcher or by a relatively small group of researchers</u> . (The period is three to five years. As a general indicator, the upper limit of the total budget provided is set around 500 million yen per research project. However, no upper and lower limits have been established.)
Scientific Research on Innovative Areas	(Research in a proposed research area) New research areas that will lead to the upgrading and enhancement of scientific research in Japan. The new research areas are proposed by one researcher or by a group of researchers, and will develop through the effort to cultivate collective research, research personnel, etc. (The period is five years. In principle, the budget is set at around 10 million to 300 million yen per fiscal year per field.)
Scientific Research	(S) Creative/pioneering research done by one researcher or a relatively small group of researchers (The period is five years. The budget ranges from 50 million yen to around 200 million yen per project.) (A)(B)(C) Creative/pioneering research done by one researcher or jointly by multiple researchers (The period is three to five years.) (A) From 20 million to 50 million yen (Classified in A, B or C, depending on the total budget provided) ◎(B) From 5 million yen to 20 million yen ★(C) 5 million yen or less
Challenging Exploratory Research	Early-stage research that has a research plan organized by one or multiple researchers, that is based on a unique concept, that is challenging, and that sets a high goal (The period is one to three years. The budget is up to 5 million yen per project.) ★
Grant-in-Aid for Young Scientists	(S) Research done by one researcher aged 42 or less (The period is five years. The budget ranges roughly from 30 million yen to 100 million yen per project.) (A)(B) Research done by one researcher aged 39 or less (The period is two to four years. Classified in A or B, depending on the total budget provided.) ◎(A) from 5 million yen to 30 million yen ★(B) 5 million yen or less
Grant-in-Aid for Research Activity Start-up	Research done by one researcher who has just been employed by the research institution, by one researcher who returns from childcare leave or other kinds of leave, or other researchers. (The period is up to two years. The budget is up to 1.5 million per fiscal year.)
Encouragement of Scientists	Research done by one person who is an employee of an educational/research institution, a company employee, or others (The period is up to one year. The budget is up to 1 million yen per project.)
Grant-in-Aid for Special Purposes	Funding of urgent and important research projects.
Grant-in-Aid for Publication of Scientific Research Results	
Publication of Research Results	Funding for publication or international dissemination of research achievements of a scientific society with high academic value

Enhancement of International Dissemination of Information	Funding of an effort to further enhance international dissemination of information, in order for academic societies, such as scientific associations, to contribute to international academic exchange.
Scientific Periodicals	Funding of academic journals that are periodically published by a scientific society, an association constituting a cooperative framework of a number of scientific societies, or other bodies, in order to contribute to international academic exchange
Scientific Literature	Funding of Scientific Literature issued by an individual or a group of researchers to disclose scientific research achievements
Databases	Funding of databases created by an individual or a group of researchers for public availability
Grant-in-Aid for JSPS Fellows	Funding of research done by JSPS Fellows, including Foreign JSPS Fellows (for a period of up to three years)

❖ As of September 2013

※No new invitation for applications is conducted for “Grant-in-Aid for Young Scientists (S)” and “Scientific Periodicals”.

※Among the research categories marked with the sign ★ (Scientific Research (C), Challenging Exploratory Research and Grant-in-Aid for Young Scientists (B)), research projects that are newly adopted in from FY2011 onward (hereinafter called “KAKENHI (Multi-year Fund)”) or later will be implemented using KAKENHI (Multi-year Fund).

※ Among the research categories marked with the sign ◎ (Scientific Research (B) and Grant-in-Aid for Young Scientists (A)), a part of the research projects that are from FY2012 onward (hereinafter called “KAKENHI (Partial Multi-year Fund)”) will be implemented using KAKENHI (Multi-year Fund) (up to 5 million yen out of the total research budget).

※ For Specially Promoted Research, a Grants-in-Aid for Scientific Research based on Acts Incurring Liabilities on the Treasury will be granted.

### **3. The Relationship between MEXT and JSPS**

The Ministry of Education (currently, the Ministry of Education, Culture, Sports, Science and Technology) publicly recruited, screened applications and delivered grants in all of the research categories up to FY1998. From FY1999 on, these tasks were transferred to the Japan Society for the Promotion of Science (JSPS). In FY2013, the delivery of grants for “Scientific Research on Innovative Areas” and the call for proposals, the screening and delivery of grants for “Grant-in-Aid for Publication of Scientific Research Results (Publication of Research Results (B/C))” have been transferred. The call for proposals, screening and funding are currently being conducted as indicated below.

<b>Research category</b>	<b>Call for proposals, screening</b>	<b>Delivery of grants</b>
	Main body in the preparation of the procedures for lodging applications and the location where the applications should be submitted.	Main body handling informal decisions to grant the funding, and notices of the decision, and the location where the application forms for grants and the various other necessary documents should be submitted
Grant-in-Aid for Special Purposes	MEXT	MEXT
Scientific Research on Innovative Areas	MEXT	JSPS
Specially Promoted Research, Scientific Research, Challenging Exploratory Research, Grant-in-Aid for Young Scientists, Grant-in-Aid for Research Activity Start-up, Encouragement of Scientists, Grant-in-Aid for Publication of Scientific Research Results, Grant-in-Aid for JSPS Fellows	JSPS	JSPS

❖ As of September 2013

#### **4. Rules Relating to KAKENHI**

KAKENHI (Series of Single-year Grants) are governed by the Law on Optimizing Implementation of Budgets Relating to Subsidies (Law No. 179, 1955), Procedures on the Handling of Grants-in-Aid for Scientific Research (Announcement of the MEXT), Procedures on the Handling of JSPS Grants-in-Aid for Scientific Research (KAKENHI (Series of Single-year Grants)) (Regulations No. 17, 2003), and Others.

The KAKENHI (Multi-year Fund) are governed by the “Basic Policy on the Management of the KAKENHI (Multi-year Fund)”, Procedures on the Handling of JSPS Grants-in-Aid for Scientific Research (KAKENHI (Multi-year Fund)) (Rule No. 19, 2011) and others.

The KAKENHI (Partial Multi-year Fund) are governed by the Law on Optimizing Implementation of Budgets Relating to Subsidies (Law No. 179, 1955), Procedures on the Handling of Grants-in-Aid for Scientific Research (Announcement of the MEXT), the “Basic Policy on the Management of the KAKENHI (Multi-year Fund)”, Procedures on the Handling of JSPS Grants-in-Aid for Scientific Research (KAKENHI (Series of Single-year Grants)) (Regulations No. 17, 2003), Procedures on the Handling of JSPS Grants-in-Aid for Scientific Research (KAKENHI (Multi-year Fund)) (Rule No. 19, 2011) and others.

(1) Three types of rules for KAKENHI

There are three types of rules for KAKENHI, as follows:

- 1) Application rules: rules concerning the applications
- 2) Assessment rules: rules concerning the preliminary assessment (screening), the interim assessment, the ex-post assessment, and the research project progress assessment
- 3) Utilization rules: rules concerning the use of KAKENHI

Moreover, these three sets of rules apply as follows.

	Application rules	Assessment rules	Utilization rules
KAKENHI (Series of Single-year Grants)	MEXT  Procedures on the call for proposals	MEXT  Rules concerning the assessment for Grants-in-Aid for Scientific Research  Screening Outline for Grants-in-Aid for Scientific Research, category “Scientific Research on Innovative Areas”  Assessment Outline for Grants-in-Aid for Scientific Research, category “Scientific Research on Innovative Areas”	MEXT  For researchers: Supplementary conditions  For research institutions: Administrative work and other tasks concerning the use of Grants-in-Aid for Scientific Research (KAKENHI (Series of Single-year Grants)), to be performed by each research institution
KAKENHI (Series of Single-year Grants)	JSPS  Procedures on the call for proposals	JSPS  Rules concerning the screening and assessment for Grants-in-Aid for Scientific Research  ※The screening and assessment rules for FY2014 are scheduled to be made public in early October.	JSPS  For researchers: Supplementary conditions  For research institutions: Administrative work and other tasks concerning the use of Grants-in-Aid for Scientific Research (KAKENHI (Series of Single-year Grants)), to be performed by each research institution
KAKENHI (Multi-year Fund)			JSPS  For researchers: Funding conditions  For research institutions: Administrative work and other tasks concerning the use of Grants-in-Aid for Scientific Research (KA KENHI (Multi-year Fund )), to be performed by eac h research institution

<p>KAKENHI (Partial Multi-year Fund)</p>			<p>JSPS</p> <p>For researchers: Funding conditions</p> <p>For research institutions: Administrative work and other tasks concerning the use of Grants-in-Aid for Scientific Research (newly adopted in FY2012 or later research projects of Scientific Research (B) and Grant-in-Aid for Young Scientists (A)), (research projects adopted in FY2012 or later), to be performed by each research institution</p>
--	--	--	--

❖ As of September 2013

(2) Appropriate use of KAKENHI

KAKENHI are funded by the tax of citizens and other sources. Researchers receiving KAKENHI have a duty to comply with the related laws, regulations and utilization rules by researchers (subsidiary conditions or funding conditions), and also to use such grants appropriately. To ensure recipients comply with this requirement, we check whether no inappropriate use of KAKENHI will be made, when an application is made. (See note below.)

To facilitate the appropriate use of KAKENHI, research institutions to which the researchers belong are responsible for the management of the KAKENHI. The Administrative work that each research institution is required to carry out (rules for use for institutions) is determined.

Among other things, the research institution has the duty to secure the appropriate use of KAKENHI, for example, by setting up a system for the management and audit of the budget, and, for the expenditure of expenses for goods, by properly implementing inspections of delivered goods. In order to prevent fraudulent accounting through fictitious business transactions (so-called “azukekin”), it is important, in addition to appropriate inspection of delivered goods, to widely inform traders about the rules and to obtain the understanding and cooperation of traders in the prevention of this kind of fraudulent accounting. Researchers need to strictly respond to traders who have been involved in fraudulent accounting through fictitious business transactions, for example by stopping doing business with such traders.

Researchers and persons in charge in the research institution should fully understand prior to the application that these rules will apply after the application is approved.

(3) Important points on the use of KAKENHI

For KAKENHI (Series of Single-year Grants) a package plan throughout the research period should



be prepared and submitted upon application. However, after the research project is adopted, it will be handled as a project which is funded for each fiscal year during the research period in question. For example, KAKENHI (Series of Single-year Grants) cannot be used to pay costs in a fiscal year which falls outside the fiscal year(s) in which the funded project should be carried out.

Furthermore, for “Specially Promoted Research”, KAKENHI (Series of Single-year Grants) based on “Acts Incurring Liabilities on the Treasury” will be funded. Since the decision to grant the funding over multiple fiscal years will be made, part of the handling will be different.

Moreover, when it can be expected that the funded project will remain unfinished within the fiscal year, due to reasons beyond the control of the applicant(s), which could not be foreseen at the time it was decided to grant the funding, the costs in question can be carried over to the next fiscal year, provided that the Minister of Education, Culture, Sports, Science and Technology (MEXT) submits a request for approval for the carry-over to the Finance Minister through JSPS, and the approval from the Finance Minister is obtained.

For KAKENHI (Multi-year Fund), the research activity after the adoption of the grant will be handled as a single funded project throughout the whole research period. Therefore, it is possible to use the grant for paying costs in a fiscal year that is different from the fiscal year of receipt of the grant, if this happens within the research period.

Moreover, if within the research period an amount of money remains unused by the end of each fiscal year, except for the final fiscal year, costs can be carried over to the next fiscal year, without researchers having to go through prior authorization procedures. In addition, if an amount of money remains unused by the end of the final fiscal year, costs can be carried over to the next fiscal year, by obtaining prior approval for extension of the research period.

For KAKENHI (Partial Multi-year Fund), a package plan throughout the research period should be prepared and submitted upon application. However, after the research project is adopted, the period of the funded project consists of one single fiscal year for non-fund based grants, and multiple fiscal years for fund based grants. Based on this, researchers should appropriately conduct their funded project. Moreover, basically non-fund based grants follow the handling of KAKENHI (Series of Single-year Grants), and fund based grants follow the handling of KAKENHI (Multi-year Fund).

- (4) The handling of a case in which the report on the research achievements has not been submitted
- 1) The report on the research achievements plays the important role of making the achievements of the research funded with a KAKENHI widely known to the citizens. It is an important tool in order to widely return the achievements of the research funded with a KAKENHI, which in

turn has the tax of citizens and other sources as its resources, to society.

Therefore, researchers should submit the report on the research achievements at the end of the research. The content of the research will be widely disclosed to the public via Database (KAKEN) of the National Institute of Informatics and other tools. Moreover, the research institution to which the researchers belong has to collect and submit the reports on the research achievements.

- 2) No funding of KAKENHI will be conducted for researchers who do not submit the report on the research achievements at the end of the research, without any reason. Moreover, it may happen that the decision to KAKENHI to the researcher in question is cancelled, or that an order to return the grant is issued. It may also happen that information, such as the name of the research institution to which the researcher in question belongs and other data, is made public.

Furthermore, if researchers have failed, without good reason, to submit the scheduled report on the research achievements, then implementation of other KAKENHI due to be 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) Treatment in case of infringement of related laws

When a research project has been implemented, by violating related laws, guidelines, etc., for example when the content which is entered in the application documents is false, it is possible that the provision of KAKENHI is not carried out or cancelled.

(Note) Examples of recent fraudulent use, fraudulent receiving of grants or fraudulent acts committed during the research.

○ Fraudulent use

- Someone instructed a trader to complete a fictitious transaction, pretended to have purchased consumables, had KAKENHI expended by the university, and then had it managed as money deposited to the trader.
- Someone instructed a trader to complete a fictitious transaction, had a false invoice issued on which the name of a good that is different from the good that had actually been purchased and delivered was stated, and then had KAKENHI expended by the university.
- Someone had a work attendance sheet for work that was actually not carried out drawn up for a graduate student, charged the payment of remuneration, and then managed the money himself, as a pooled fund.
- Someone stayed in a destination different from the scheduled travel plan, in order to have a meeting on collective research unrelated to the purpose of the research project, and then put the costs under travel expenses associated with overseas travel.

(Note) The expenditure of KAKENHI for fictitious and other transactions, like the ones mentioned in the examples, are all considered fraudulent use, even if the expenditure of KAKENHI was intended for the research project related to the Grant-in-Aid for Scientific Research in question.

○ Fraudulent receiving of grants

- A researcher who was not eligible to apply or receive grants applied for a KAKENHI and for funding of it, and then fraudulently received the subsidy.

○ Fraudulent acts committed during the research

- Someone manipulated or forged experimental data or a chart in a research paper published as the achievements of research funded with a KAKENHI.
- Someone translated an original English-language research paper without obtaining prior consent from the author(s), incorporated this translation into a book or report on the research achievements published as the achievements of research funded with a KAKENHI, and made it public as the research achievements of the research project in question, without clearly mentioning that it was being quoted.

## **5. “Guidelines on the Proper Implementation of Competitive Funding” and Other Matters**

The “Guidelines on the Proper Implementation of Competitive Funding” (agreement of the liaison meeting of related offices and ministries on competitive funding, dated September 9, 2005) agree on the rules in the field of competitive funding on the elimination of unreasonable reduplication and excessive concentration, fraudulent receiving, of grants, fraudulent use and research-related fraudulent acts in research papers, and other matters in the related offices and ministries.

During the implementation of the competitive funding, including KAKENHI, these matters will be dealt with appropriately, based on these Guidelines and other matters. Therefore, the applicant should consider carefully the following points.

### **(1) Eliminate Unreasonable Reduplication and Excessive Concentration**

- 1) In order to avoid “Unreasonable Reduplication or Excessive Concentration” (\*) of competitive funds, we may, to the extent necessary, share information on a part of the project description of

the application between other divisions in charge of competitive funds, including other offices and ministries, independent administrative legal entities, etc, making use of the Cross-ministerial Research and Development management system (e-Rad).

Therefore, in the case of an application for more than one competitive funding (including in the case of an application for more than one Research Categories for KAKENHI), and other matters, the applicant should be careful when preparing the Proposal for Grant-in-Aid so that, for example, he or she fills in the Title of the Proposed Project in a way that makes it clear that it does not entail unreasonable reduplication.

If unreasonable reduplication or excessive concentration is found, KAKENHI may not be delivered.

- 2) Concerning the completed information on the condition of applications and receiving of other Competitive Funding and other matters, including from other offices and ministries, when preparing the Proposal for Grant-in-Aid (name of Research Funds, Title of Proposed Project, Research period, Effort, etc.), if the stated information turns out to be different from the facts, the Research Project will not be adopted, the adoption will be cancelled, or the allotted research budget will be reduced.

Moreover, concerning the “Effort”, and other matters, necessary for the activity to build a center in the program called “World Premier International Research Center Initiative”, it is necessary to fill in the Proposal for Grant-in-Aid. Therefore, when completing this document, the applicant should verify the “Procedures for Preparing and Entering a Proposal”.

## **(2) Dealing with Fraudulent Use, Fraudulently Received Grants or Fraudulent Acts Committed During the Research**

- 1) **No KAKENHI will be offered, for a fixed period of time, when the researcher has made fraudulent use of KAKENHI, has fraudulently received KAKENHI, or has committed fraudulent acts.** (For details see “(Reference 2) Procedures on the Handling of Grants-in-Aid for Scientific Research”, “(Reference 3) Procedures on the Handling of JSPS Grants-in-Aid for Scientific Research – KAKENHI (KAKENHI (Series of Single-year Grants))” and “(Reference 4) Procedures on the Handling of JSPS Grants-in-Aid for Scientific Research – KAKENHI (KAKENHI (Multi-year Fund))”.) Moreover, for research projects of which it has been established that fraudulent use, fraudulent receipt of grants or fraudulent acts have taken place, researchers may be requested to completely or partially return the KAKENHI in question. Furthermore, **an outline of the inappropriate use of grants, the inappropriate receiving of grants and/or the inappropriate acts in question of the researcher who falls in those categories (containing an outline of the research achievements 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 inappropriate content, details of the measures taken, etc.) will be made public.**

Also **researchers who fraudulently use or receive competitive funds other than KAKENHI (including funds under the control of other ministries), or who commit fraudulent acts by means of these competitive funds, and therefore are excluded from receiving these funds in question, for a fixed period of time, will not receive KAKENHI for a fixed period of time.**

Moreover, the researcher who falls in those categories may experience difficulties when applying for other competitive funds, since an outline of the inappropriate case in question will be provided to other bodies in charge of competitive funds, starting with the other ministries, including independent administrative legal entities and other institutions allocating grants.

Moreover, the researcher who falls in those categories may experience difficulties when applying for other competitive funds, since an outline of the inappropriate use of grants, the inappropriate receiving of grants and/or the inappropriate acts in question (containing an outline of the research achievements in the research institution, the names of the people involved, the institution they belong to, the research project, the budget, the fiscal year of the research, the inappropriate content, details of the measures taken, etc.) will be provided to other bodies in charge of competitive funds, starting with the other ministries, including independent administrative legal entities and other institutions allocating grants.

- 2) If it has been established that fraudulent acts have taken place in a research paper, a report, or other research output funded by KAKENHI, the researcher will be treated in the same way as stated in the above-mentioned 1). The severity of the fraudulent acts and other matters will be taken into consideration.

Moreover, a person who is determined to have a certain responsibility, because, for example, he or she neglected his/her duty of care as a person in charge of the paper, report, etc. in question, will be treated in the same way, even if it has not been established that he or she was directly involved in the fraudulent acts.

**(\* Eliminate Unreasonable Reduplication and Excessive Concentration**

**“Guidelines on the Proper Implementation of Competitive Funding” -Extract-  
(Agreement of the Liaison Meeting of Related Offices and Ministries on Competitive  
Funding, Dated September 9, 2005 (Revision: October 17, 2012))**

**2. Eliminate Unreasonable Reduplication and Excessive Concentration**

**(1) Basic Policy of the Unreasonable Reduplication and Excessive Concentration**

① In these guidelines, “Unreasonable Reduplication” is a situation in which more than one competitive funding is needlessly and repeatedly allotted to one and the same research project (i.e. the title and the content of the research to which competitive funding is being allotted; the same applies below) carried out by one and the same researcher. Either of the following cases fall under “Unreasonable Reduplication”.

○ Cases where applications have been made at the same time for more than one competitive funding for substantively the same research project (including research projects that overlap to a considerable degree; the same applies below), and where these research projects are redundantly adopted .

○ Cases where an application has been made again for substantively the same research project as another project that has already been adopted, and for which the allotment of competitive funding has already been completed.

○ Cases where there is a reduplication of the use research funds among more than one research project.

○ Other cases corresponding to the cases mentioned above.

② In these guidelines, “Excessive Concentration” is a situation in which the entire research funds that are allotted to one and the same researcher or research group (hereinafter called “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 fall 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.

**6. On the Promotion of the ‘Dialogue on Science and Technology with Citizens’ (A  
Basic Course of Action)**

For KAKENHI, it has, until now, clearly been mentioned in the utilization rules by researchers (subsidiary conditions or funding conditions), the Handbook for KAKENHI, and other materials, that the expenses for the creation of a homepage for the publication of the research achievements, the expenses for the creation of a pamphlet publicizing research achievements, the expenses associated with outreach activities, such as, for example, activities publicizing the research achievements among the general public, can be paid as direct costs. Moreover, researchers must endeavor to positively disseminate the achievements produced through KAKENHI to society and

citizens. For example, it is requested that researchers mention information concerning outreach activities in the report on the research achievements they are requested to prepare after the completion of the research period.

Furthermore, JSPS has implemented the program “HIRAMEKI ☆ TOKIMEKI SCIENCE” in order to introduce the newest research achievements to elementary school, junior high-school and senior high-school pupils, in an easy-to-understand form, through experiences, experiments and lectures. Researchers are invited to make use of this program.

Moreover, in “*On the Promotion of the ‘Dialogue on Science and Technology with Citizens’ (A Basic Course of Action)*” (June 19, 2010, the Minister of State for Science and Technology Policy and the Experts of the Council for Science and Technology Policy) which has been 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 and other persons who have received an allotment of public research funds amounting more than 30,000,000 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 to enable the proper implementation of the Dialogue on Science and Technology between Citizens, on the one hand, and researchers and other persons who have received public research funds, on the other hand, for example, by setting up support systems.

For KAKENHI, there is the question “Are you positively trying to publicize and disseminate the research content and research achievements?”, especially in the research progress assessment of, for example, Specially Promoted Research, for which researchers receive a relatively high amount of research funds, and the interim assessment of, for example, Scientific Research on Innovative Areas (Research in a proposed research area). Therefore, based on the above-mentioned Basic Course of Action, researchers should disseminate the achievements of research funded with KAKENHI to society and citizens in an even more positive way.

## **7. Cooperation with the National Bioscience Database Center**

The National Bioscience Database Center (<http://biosciencedbc.jp/>) has been established in the Japan Science and Technology Agency (JST, an independent administrative legal entity) in April 2011, 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 in the researchers community of the research achievements in the area of life science produced in Japan, 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. Furthermore, JSPS would like researchers to understand in advance that, in response to 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

Cf. URL: <http://humandbs.biosciencedbc.jp/guidelines/>

Please direct inquiries to:

Japan Science and Technology Agency, National Bioscience Database Center

Tel. 03-5214-8491

## **8. On the Inter-University Bio-Backup Project**

The purpose of the Inter-University Bio-Backup Project 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 IBBP Center (Inter-University Bio-Backup Project for Basic Biology) (<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 IBBP 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 IBBP.

Any researcher who belongs to a university or a research institution may apply for storage. Biological genetic resources that can be stored in IBBP 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 IBBP.

Please direct inquiries to:

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

Tel.0564-59-5930, 5931

## **II. Details of the Call for Proposals**

A call for proposals for “Grants-in-Aid for Scientific Research KAKENHI” will be conducted together for hitherto known Grants-in-Aid for Scientific Research (hereinafter called “KAKENHI (Series of Single-year Grants)”) and Multi-year Fund Scientific Research Grants (hereinafter called “KAKENHI (Multi-year Fund)”).

The current round of call for proposals opens before the finalization of the budget for FY2014 in order to enable researchers to proceed with their preparations for the screening early, so that they can start their research as soon as possible.

Therefore, please be aware in advance that, depending on the situation regarding the overall budget, details like resources to be allocated and other matters may be subject to change at a later stage.

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

The following shows the research categories for which the Japan Society for the Promotion of Science is organizing a call for proposals:

**Specially Promoted Research, Scientific Research (S/A/B/C), Challenging Exploratory Research, Grant-in-Aid for Young Scientists (A/B)**

※ For Grant-in-Aid for Young Scientists (S) no call for proposals will be conducted.

### **2. Schedule from Application to Receipt of Funding**

#### **(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.





### **3. Details of Each Research Category**

#### **1) Specially Promoted Research: KAKENHI (Series of Single-year Grants)**

A) Intended for: Research project carried out **by one researcher or by a relatively small group of researchers** that is likely to yield highly acclaimed research achievements through intensive funding. The goal of the funding is the increased promotion of research which is highly regarded in the international arena.

B) Total budget provided (**total budget throughout the research period the same applies below**):

As a general indicator, the upper limit of the total budget provided per research project is fixed at around 500 million yen. However, if it is deemed necessary, applications exceeding this amount are also possible. Moreover, no lower limit has been established.

※ Handling of research projects with a total budget exceeding 500 million yen

If the total budget exceeds 500 million yen, the reason why such a budget is needed should be stated in detail in the appropriate section of the proposal for grant-in-aid. Especially rigorous screening on the appropriateness of the budget will be conducted.

※ On the lower limit of total budget

No lower limit of the total budget has been established for research categories that further promote research which is highly regarded in the international arena and that are likely to yield highly acclaimed research achievements.

C) Research period: Three to five years

D) Number of research projects scheduled to be selected: Around 10 (subject to strict selection)

E) Research funding: **KAKENHI (Series of Single-year Grants) based on Acts Incurring Liabilities on the Treasury** are granted.

F) Important points: For research projects that have been adopted, a research progress assessment will be conducted in the fiscal year before the final fiscal year of the research period. Moreover, based on the results of this research progress assessment, an increase or a reduction of the research budget, cancellation of the research, or other measures may subsequently be implemented, if the need arises. Moreover, a follow-up assessment will be conducted 5 years after the completion of the research.

※ On Acts Incurring Liabilities on the Treasury

For Specially Promoted Research, “Acts Incurring Liabilities on the Treasury” have been introduced, and a decision to grant the funding over

multiple fiscal years will be made.

**2) Scientific Research (S): KAKENHI (Series of Single-year Grants)**

- A) Intended for: **Research project performed by one researcher or by a relatively small group of researchers**, with the purpose of achieving a major development in creative and pioneering research, based on past research achievements
- B) Total budget provided: **From 50 million yen to around 200 million yen**
- C) Research period: Five years as a general rule  
※As an exception, the research period may be set at three or four years, in case any of the researchers are expected to leave the research institution, due to reaching retirement age, or for any other reason.
- D) Research funding: **KAKENHI (Series of Single-year Grants)** are granted.
- E) Important points: For research projects that have been adopted, a research progress assessment will be conducted in the fiscal year before the final fiscal year of the research period. Moreover, based on the results of this research progress assessment, an increase or a reduction of the research budget, cancellation of the research, or other measures may subsequently be implemented, if the need arises.

**3) Scientific Research (A/B/C)**

**Scientific Research (A): KAKENHI (Series of Single-year Grants)**

**Scientific Research (B): KAKENHI (Series of Single-year Grants) and KAKENHI (Multi-year Fund)**

**Scientific Research (C): KAKENHI (Multi-year Fund)**

- A) Intended for: Research project done by one or by multiple researchers, with the purpose of achieving a major development in creative and pioneering research
- B) Total budget provided: Applications are to be divided into the following three divisions, according to the total budget provided.

Division	Total budget provided	Screening division
Scientific Research (A)	between 20 million and 50 million yen	General / Overseas Academic Research

<b>Scientific Research (B)</b>	<b>between 5 million and 20 million yen</b>	General / Overseas Academic Research/ Generative Research Fields
<b>Scientific Research (C)</b>	<b>5 million yen or less</b>	General/ Generative Research Fields

C) Research period:

Screening division: “General” and “Overseas Academic Research”: Three to five years

Screening division: “Generative Research Fields”: Three to five years (Depending on the fiscal year of the application, the research period is different.)

D) Screening division: When applying, **select one of the following screening divisions.**

**Screening division: “General”**

The screening division accepts applications relating to **Scientific Research (A/B/C)**. It is intended for projects which will develop innovative research.

All applications should be made for this screening division, except for research projects which are classified as “Overseas Academic Research” and “Generative Research Fields”.

**Screening division: “Overseas Academic Research”**

This screening division only accepts applications for **Scientific Research (A/B)**. It is intended for research projects having as their **major purpose** in terms of research subject and research methods **conducting a field survey, observation, or collecting data at a specific location overseas.**

If a field survey, or a similar survey, is not the main purpose of the project, please apply for the “General” screening division. As far as equipment is concerned, the use of grants in the “Overseas Academic Research” screening division is limited to equipment that is directly used for surveys, observation or collection of data overseas, such as inexpensive personal computers.

**Screening division: “Generative Research Fields”**

This screening division only accepts applications for **Scientific Research (B/C)**. For FY2014 the three areas “Neo-Gerontology”, “Mathematical Sciences in Search

of New Cooperation” and “Food Cycle Research” have been established.

Attached Table 2 Please avoid applying for “Generative Research Fields” in the case of research projects where it is possible to select an appropriate research field from Attached Table 2 “Grants-in-Aid for Scientific Research FY2014 List of Categories, Areas, Disciplines and Research Fields”.

(\*) • The set period for each area is five years and the period of the invitation for applications is fixed from the fiscal year of the establishment of the area until the third fiscal year. In the first fiscal year of the set period, the research period for which it is possible to apply is three to five years, in the second fiscal year of the set period, it is three to four years, and in the third fiscal year of the set period, it is three years.

- Number of research projects scheduled to be selected: **30 for each area (subject to careful selection)**.
- Please note that, during the stage of the screening of “Generative Research Fields”, Principal Investigators may be requested to submit additional materials, if the need arises.
- Research exchange meetings are scheduled to be held for researchers whose projects have been adopted.

E) Research funding: For Scientific Research (A), **KAKENHI (Series of Single-year Grants)** are granted. For Scientific Research (B), **KAKENHI (Series of Single-year Grants) and KAKENHI (Multi-year Fund)** are granted. For Scientific Research (C), **KAKENHI (Multi-year Fund)** are granted.

#### **4) Challenging Exploratory Research: KAKENHI (Multi-year Fund)**

- A) Intended for: **A Research project at an exploratory stage**, done by one or multiple researchers, **that is based on a unique concept, that is challenging, and that sets an ambitious goal.**
- B) Total budget provided: **5 million yen or less**
- C) Research period: One to three years
- D) Research funding: **KAKENHI (Multi-year Fund)** are granted.



## **5) Grant-in-Aid for Young Scientists (A/B)**

**Grant-in-Aid for Young Scientists (A): KAKENHI (Series of Single-year Grants) and KAKENHI (Multi-year Fund)**

**Grant-in-Aid for Young Scientists (B): KAKENHI (Multi-year Fund)**

- A) Intended for: A research project conducted by **one researcher aged 39 or less as of April 1, 2014** (a person born on April 2, 1974, or thereafter) with an original idea that is expected to bring forth a major development in the future
- B) Total budget provided: Applications are to be divided into the following two divisions, depending on the total budget provided

Division	Total budget provided
<b>Grant-in-Aid for Young Scientists (A)</b>	<b>From 5 million yen to 30 million yen</b>
<b>Grant-in-Aid for Young Scientists (B)</b>	<b>5 million yen or less</b>

- C) Research period: Two to four years
- D) Research funding: For Grant-in-Aid for Young Scientists (A), **KAKENHI (Series of Single-year Grants) and KAKENHI (Multi-year Fund)** are granted. For Grant-in-Aid for Young Scientists (B), **KAKENHI (Multi-year Fund)** are granted.
- E) Important points: On the “Restriction on the Number of Times of Receiving a Grant(\*)”.  
From the call for proposals of FY2010 on, JSPS decided to introduce a limitation on the number of times applicants can receive grants through Grant-in-Aid for Young Scientists (S/A/B). **JSPS has decided that applicants can only receive grants twice for any of the research categories, through Grant-in-Aid for Young Scientists (S/A/B).**

- (\*) “Receiving a grant” means being selected as a Grant-in-Aid for Young Scientists (S/A/B) “Receiving a decision concerning the granting of the funding” here.

In addition, even if a research project of which the research period goes over more than one fiscal year received a decision concerning the granting of the funding, under one and the same project number, the “Number of Times of Receiving a Grant” will be considered as “one time”.

Therefore, if, for example, researcher A conducted research from FY2003 to FY2004 with a “Grant-in-Aid for Young Scientists (B) (project number: 15\*\*\*\*\*)”, and is conducting research from FY2006 to FY2009 with a “Grant-in-Aid for Young Scientists (A) (project

number: 18\*\*\*\*\*)", the "Number of Times of Receiving a Grant" will be considered as "two times".

Moreover, in both the following cases, the "Number of Times of Receiving a Grant" will be considered as "one time".

- Cases where the researcher declined the application for funding in the middle of the research period, or where he or she discontinued the research, after he or she received a decision concerning the granting of the funding.
- Cases where the researcher applied during Grants-in-Aid for Scientific Research FY2006 for a "Grant-in-Aid for Special Purposes (Trial of Multiple Applications per Year)" with a research plan suitable for a "Grant-in-Aid for Young Scientists", where that application was adopted, and where the researcher received the decision concerning the granting of the funding.

(Reference) Please note that the following cases do not contain a "Number of Times of Receiving a Grant".

- In cases where, after the researcher received an informal decision to grant the funding for new research projects, he or she refused the application for funding, and did not receive the decision concerning the granting of the funding, there is no "Number of Times of Receiving a Grant". (This also includes cases where the researcher declines the grant, after he or she suspended the application for funding.)
- For Continued Research Projects of the category "Grant-in-Aid for Young Scientists (B)" in FY2002 (projects that have been newly approved in FY2001 as "Encouragement of Scientists (A)" with project number "13\*\*\*\*\*") there is no "Number of Times of Receiving a Grant", even if the researcher would have received the decision concerning the granting of the funding.

### **III. Instructions & Procedures for those Intending to Apply**

A call for proposals for “Grants-in-Aid for Scientific Research KAKENHI” will be conducted together for hitherto known Grants-in-Aid for Scientific Research (hereinafter called “KAKENHI (Series of Single-year Grants)”) and Multi-year Fund Scientific Research Grants (hereinafter called “KAKENHI (Multi-year Fund)”).

#### **1. Procedures to be Completed Prior to the Application**

**Three matters need to be completed before the application: (1) Verification of the Eligibility to Apply, (2) Verification of the Registration of the Researcher Information, (3) Obtaining an ID and Password to Use the Electronic Application System.**

##### **(1) Verification of the Eligibility to Apply**

A qualified person should apply for a Grant-in-Aid for Scientific Research as a Principal Investigator.

Applicants should meet the requirements 1) and 2) below.

**From FY2014 on, if JSPS Research Fellows (SPD, PD, or RPD) meet the following application requirements in their host research institutions, they can also apply for a part of the research categories other than “Grant-in-Aid for JSPS Fellows”. Cf. “Table of Restrictions on Duplication”.**

Moreover, if a qualified applicant belongs to more than one research institution, he or she can apply simultaneously from each of these research institutions. However, in that case, it is necessary to consider the rules on duplicate applications (see page 29).

In addition, JSPS Research Fellows (DC) and Foreign JSPS Fellows cannot apply for "Grant-in-Aid for Scientific Research".

Students, such as, for example, graduate students, cannot apply for Grants-in-Aid for Scientific Research. (See note.) Therefore, applicants should bear in mind that, students cannot apply, even if they hold a position in which they conduct research activities in the research institution to which they belong or in another research institution.

(Note) Persons who have a position consisting of conducting research activities in the research institution to which they belong, as their main work (e.g., university teaching staff, researchers from companies, etc.), and who also have a student status are not included in the term “student”.

- ① **At the time of the application, a person needs to be recognized by the research institution (Note) to which he or she belongs to be a researcher who meets the requirements 1) , 2) and 3) below, and needs to be a researcher whose Researcher Information has been registered in e-Rad as “Eligible to Apply for Grants-in-Aid for Research”.**

**Requirements**

- 1) **The researcher should belong to the research institution as a person who has *inter alia* the duty to perform research activities within the research institution in question** (irrespective of whether the work is paid or unpaid, full-time or part-time. Moreover, it is not necessary for the researcher to perform these research activities as such as his or her main duty.)
- 2) **The researcher should actually be engaged in research activities at the research institution in question**(This does not apply to cases where he or she is only engaged as a research assistant.)
- 3) **The researcher is not a graduate student or any other category of student.** (However, this does not apply to persons who have a position consisting of conducting research activities in the research institution to which they belong, as their main work (e.g., university teaching staff, researchers from companies, etc.), and who also have a student status.)

Note: Research institutions as prescribed in Article 2 of the Rules for the Handling of Grants-in-Aid for Scientific Research (announced by the Ministry of Education)

(Reference) Requirements that need to be met by the research institution (see page 104)

**Requirements**

- If a KAKENHI is given, the research activity should be conducted as an activity of the research institution in question.
- If a KAKENHI is given, the research institution should carry out the management of the KAKENHI.

- ② **A person should not fall under “Not eligible for receipt of funding” in FY2014, because he or she committed fraudulent use, fraudulent receiving of grants or fraudulent acts of/with Grants-in-Aid for Scientific Research or other competitive funding.**

Persons who are employed through KAKENHI (hereinafter called “research grant employees”), as a rule, need to concentrate on work related to a KAKENHI at their place of employment (hereinafter called “employment related work”) according to their employment contracts. Therefore, considering the working hours they need to allot to the employment related work, they cannot apply for KAKENHI themselves.

However, if they provide a clear explanation on the time they can spend besides their employment related work, and if during this time they themselves attempt to conduct research using a KAKENHI, on their own initiative, it is possible for them to apply for KAKENHI, on condition that the following points have been verified in the research institution.

- It has been determined in the employment contract that research grant employees themselves can conduct research on their own initiative, besides the employment related work.
- The employment related work and the work devoted to research that they conduct themselves on their own initiative has clearly been divided in the working hours and the effort.
- Time that can be allotted to research which they attempt to conduct themselves on their own initiative has sufficiently been secured, besides the time spent for employment related work.

In addition, it may happen to researchers that they are treated as indicated below, even if their researcher information has been registered in e-Rad as “Eligible to Apply for KAKENHI”.

- If it is judged in the research institution to which researchers belong that it is not appropriate to let them conduct their research activities as activities of the research institution in question, it may happen that the research institution does not recognize the application. It may also happen that the application for funding by these researchers in question is not recognized and that the application for funding of the KAKENHI is rejected.
- No KAKENHI will be funded, if there is a new application for Grants-in-Aid for Scientific Research from researchers who do not submit the report on the research achievements at the end of the research, without any reason, even if their research has been adopted after screening. Moreover, if researchers have failed, without good reason, to submit the scheduled report on the research achievements, then implementation of other Grants-in-Aid for Scientific Research due to be implemented in the same fiscal year will be suspended.

## **(2) Verification of the Registration of the Researcher Information in e-Rad**

A Principal Investigator who tries to apply for research categories for which a call for proposals is organized this time should be a person who is eligible to apply at the time of the deadline for the submission of the application documents, and should be a person whose researcher information is registered in e-Rad as “Eligible to Apply for KAKENHI”.

Therefore, **when applying, it is necessary to first perform a verification of the content of the registration in e-Rad.**

Regarding the registration in e-Rad, in order for **the research institution** to which the Principal Investigator belongs to conduct the procedures in e-Rad, he or she should verify concerning the

registration procedures to be conducted by the research institution to which he or she belongs (registration deadline within the research institution, methods of verification of the current state of the registration, etc.) with the research institution to which he or she belongs. (If there is any item (such as “the institution”, “the position”, or others) that needs to be corrected, even though he or she has already been included in e-Rad of the research institution, the applicant needs to register the correct information on e-Rad.)

### **(3) Obtaining an ID and a Password to Use the Electronic Application System**

When applying, it is necessary to access the Electronic Application System using the ID and password for e-Rad and to prepare the application documents. Therefore, if the applicant has not obtained an ID and password, he or she should first be **provided with an ID and a password for e-Rad** by the research institution to which he or she belongs.

Moreover, once the ID and the password have been provided they can be used, even if the research institution the applicant belongs to changes.

#### **(Reference) On “Grant-in-Aid for Research Activity Start-up”**

The “Grant-in-Aid for Research Activity Start-up” is aimed at supporting persons who cannot apply for the call for proposals this time, such as researchers who have just been employed by their research institutions, researchers who return from childcare leave or other kinds of leave, or other researchers.

The FY2014 call for proposals for this research category is scheduled for March 2014, and the eligibility to apply is scheduled to be as follows.

- ① Persons who could not apply for a research category, because they became eligible to apply for KAKENHI on the day after the application deadline (November 8, 2013) for the research categories (\*) for which the Ministry of Education, Culture, Sports, Science and Technology (MEXT) and the Japan Society for the Promotion of Science (JSPS) organized a call for proposals in September 2013.
- ② Persons who could not apply for the research categories (\*) for which the Ministry of Education, Culture, Sports, Science and Technology (MEXT) and the Japan Society for the Promotion of Science (JSPS) organized a call for proposals in September 2013, because they took up maternity leave or childcare leave in FY2013.

(Applicants should verify the details in the Application Procedures of March 2014.)

The research institution is responsible for conducting the registration of the researcher information and other matters in e-Rad. Therefore, researchers who may come to fall under the above-mentioned point ①, should respond appropriately and, for example, contact the office worker in charge in the research institution.

(\*) Among the Grants-in-Aid for Scientific Research for FY2014 there are “Scientific Research on Innovative Areas”, “Specially Promoted Research”, “Scientific Research”, “Challenging Exploratory Research” and “Grant-in-Aid for Young Scientists”.

(Note) Even if JSPS Research Fellows (SPD, PD, or RPD) have become eligible in their host research institutions, they cannot apply for “Grant-in-Aid for Research Activity Start-up”.

## **2. Verification of the Restrictions on Duplication**

**Before preparing the application forms, researchers who would like to apply for KAKENHI need to sufficiently verify the rules for “restrictions on duplication” in order to find out whether it is possible to apply for the research category they would like to apply for.**

### **(1) Restrictions on Duplication in the Basic Policy**

In the KAKENHI different “Research Categories” and “Screening Divisions” have been made, based on the scale of the research, the content, and other factors. This makes it possible to apply for research projects that meet the demands of various research forms.

On the other hand, taking into consideration the necessity to support many excellent researchers with limited resources, the danger of negatively affecting the operation of proper reviewing by an increase in the number of applications, and other elements, “Rules for Restrictions on Duplication” have been set up, based on the following fundamental principles.

- ① Making sure that as many excellent researchers as possible are supported with limited resources.
- ② Making sure that the number of applications does not increase dramatically, based on the reviewing system of each research category.
- ③ When setting up restrictions, primarily making the Principal Investigator who bears all responsibility eligible for the implementation of research projects, but also making the Co-Investigator (*kenkyū-buntansha*) eligible in some cases, for example, if the amount of funds in a research category is large.
- ④ Based on the fundamental principles outlined above, taking into consideration the purpose, character, and other elements of the “Research Categories” of the Grants-in-Aid for Scientific Research, and setting up restrictions on duplication separately, by making a distinction between the restrictions on application or restrictions on receiving of funds.

Restrictions on duplication have also been established in the research categories for which a call for proposals is organized this time. **Therefore, when applying, the applicant should sufficiently verify the description below and the “Table of Restrictions on Duplication” showed on pp.37-42.**

Moreover, if a research project falls under the concept “unreasonable reduplication” as shown in the “Guidelines on the Proper Implementation of Competitive Funding” (cf. p. 12), it is likely to be judged to be “unreasonable reduplication” in the stage of the screening. Therefore, when preparing the Proposal for Grant-in-Aid, the applicant should take this into account.

## (2) Restrictions on Duplicate Applications

① Cases where a researcher tries to apply as the “Principal Investigator” for two research projects.

【Type “Principal Investigator→Principal Investigator”】 (see page 37)

Consequently, he or she cannot make more than one application for one and the same research category (screening division) at the same time (**In case he or she has a continued research project, he or she cannot apply for a new research project in one and the same research category (screening division).**)

(cases that fall under “—” in the table)

In case one researcher tries to make a duplicate application for two research projects, as the Principal Investigator for both, the following restrictions on duplicate applications of the type from A to D below apply.

However, this does not apply in case a researcher extended the research period for a KAKENHI (Multi-year Fund) and KAKENHI (Partial Multi-year Fund) in the final fiscal year (except in cases where she also obtained maternity leave or childcare leave) and in case of an “Application for a grant for the fiscal year before the final fiscal year of a research project” (See “Special cases in the restrictions on duplicate applications”, page 35).

A Cases where a researcher can only apply for one research project.

(cases that fall under “×” in the table)

B Cases where a researcher cannot apply for a new research project, because he or she is implementing a continued research project.

(cases that fall under “▲” in the table)

C Cases where a researcher can apply for both research projects, but, if both are adopted, he or she can only implement the research of one research project, as laid down in the rules.

〔 For “■” in the table, the research categories in the section A are given priority  
For “□”, the research categories in the section B are given priority 〕

D Cases where, as a general rule, duplicate applicants are not recognized, but where a researcher can apply for both research projects, only if the conditions added below are met.

〔 If a researcher applies as a Principal Investigator for “Scientific Research”, screening division “Overseas Academic Research”, as a general rule, he or she cannot apply as a Principal Investigator for “Scientific Research”, screening division “General” However, except in cases where it is necessary to conduct individually two research projects which clearly differ in objective, plan or methodology within the same fiscal year. 〕

(cases that fall under “★” in the table)

② Cases where a researcher who applies as the Principal Investigator tries to participate as the Co-Investigator (*kenkyū-buntansha*) of another research project.

【Type “Principal Investigator→Co-Investigator (*kenkyū-buntansha*)”】 (see page 39)



In case one researcher applies as the Principal Investigator for a certain research project and at the same time also tries to participate as the Co-Investigator (*kenkyū-buntansha*) of another research project, or, in case a researcher who has already become the Principal Investigator of a research project the continuation of which is scheduled in FY2014 (continued research project) also tries to participate as the Co-Investigator (*kenkyū-buntansha*) of another research project, he or she can normally apply for both projects.

However, for a part of the research categories, mainly Specially Promoted Research, Scientific Research on Innovative Areas (Research in a Proposed Research Project), Challenging Exploratory Research, etc., there are restrictions on duplicate applications of the type from A to C below.

A Cases where a researcher can only apply for one research project.

**(cases that fall under “×” in the table)**

B Cases where a researcher cannot apply for a new research project, because he or she is implementing a continued research project.

**(cases that fall under “▲” in the table)**

C Cases where a researcher can apply for both research projects, but, if both are adopted, he or she can only implement the research of one research project, as laid down in the rules.

**〔 For “■” in the table, the research categories in the section A are given priority 〕**

③ Cases where a researcher who participates in research as the Co-Investigator (*kenkyū-buntansha*) tries to apply as the Principal Investigator of another research project.  
【Type “Co-Investigator (*kenkyū-buntansha*)→Principal Investigator”】 (see page 41)

In case one researcher tries to participate as the Co-Investigator (*kenkyū-buntansha*) in a certain research project and at the same time also applies as the Principal Investigator of another research project, or, in case a researcher who has already become the Co-Investigator (*kenkyū-buntansha*) of a research project the continuation of which is scheduled in FY2014 (continued research project) also applies as the Principal Investigator of another research project, he or she can normally apply for both projects.

However, for a part of the research categories, mainly Specially Promoted Research, or other projects, there are the same restrictions on duplicate applications as in point ②).

**〔 For “□” in the table, the research categories in the section B are given priority 〕**

④ Cases where a researcher who participates as the Co-Investigator (*kenkyū-buntansha*) of a research project also tries to participate as the Co-Investigator (*kenkyū-buntansha*) of another research project.  
【Type “Co-Investigator (*kenkyū-buntansha*)→Co-Investigator (*kenkyū-buntansha*)”】

In case one researcher tries to participate as the Co-Investigator (*kenkyū-buntansha*) in a certain research project and at the same time also tries to participate as the Co-Investigator (*kenkyū-buntansha*) of another research project, or, in case a researcher who has already become the Co-Investigator (*kenkyū-buntansha*) of a research project the continuation of which is scheduled in FY2014 (continued research project) also tries to participate as the Co-Investigator (*kenkyū-buntansha*) of another research project, he or she can normally apply for both projects.

However, for Specially Promoted Research, a researcher cannot participate in two research projects as the Co-Investigator (*kenkyū-buntansha*). In addition, in case a researcher has already become the Co-Investigator (*kenkyū-buntansha*) of Specially Promoted Research, he or she cannot participate as the Co-Investigator (*kenkyū-buntansha*) of other Specially Promoted Research either.

### (3) Restriction Rules on the Receiving of Grants

Among the Restrictions on Duplication, the handling of cases that fall under the category “A researcher can apply for both research projects. However, in case both are adopted, he or she can only implement the research of one research project” (restrictions on receiving of grants) is as follows.

<input type="radio"/> On the handling in case both applications that fall under “■” or “□” are adopted
--

A In cases of “Principal Investigator” and “Principal Investigator” (cases of Principal Investigator of Specially Promoted Research and Principal Investigator of other research categories, etc.), as a result of the restrictions on duplication, a researcher should abandon (or should decline to accept) the research project that he or she cannot implement, if he or she can only implement the research category mentioned in section A or section B, as laid down in the rules.

B As a result of the Restrictions on Duplication of Principal Investigators of Specially Promoted Research and Co-Investigators (*kenkyū-buntansha*) of other research categories, a researcher should cease being a “Co-Investigator (*kenkyū-buntansha*)” for research projects other than Specially Promoted Research, if he or she can only implement a research project of Specially Promoted Research (as the Principal Investigator).

Moreover, if he or she ceases being the “Co-Investigator (*kenkyū-buntansha*)”, he or she should abandon (or should decline to accept) research projects of which he or she cannot continue the research.

#### (4) Other Important Points

- 1) Even if duplicate application, etc. is possible according to the rules on restriction of duplication, the researcher should consider the restrictions in case of “Situations where the applicant cannot carry out his/her responsibility as a Principal Investigator or a Co-Investigator (*kenkyū-buntansha*), due to participation in multiple research projects”. Altogether, he or she should consider the content of “Elimination of Unreasonable Reduplication and Excessive Concentration” mentioned on page 12.
- 2) Even if the application has been accepted in the Electronic Application System, it may happen in some cases that afterwards it is not accepted for reviewing, due to the Restrictions on Duplicate Applications. This may happen, for example, in case a change has taken place in the project members of continued research projects. The researcher should sufficiently verify this before the submission of the application documents.
- 3) Even when a researcher who is eligible to make applications in multiple research institutions applies at the same time from multiple research institutions separately, the restrictions on duplicated applications apply to that researcher in question (Principal Investigator or Co-Investigator (*kenkyū-bentansha*)).
- 4) When verifying the “Table of Restrictions on Duplication”, the participation form to “Summarizing Group Research Projects” in Scientific Research on Innovative Areas (Research in a Proposed Research Area)” is special (see “Application Procedures for Grants-in-Aid for Scientific Research – KAKENHI - FY2014 (MEXT)”). Therefore, applicants should take note of the following points.
  - A The “Principal Investigator of Summarizing Group Research Projects in Scientific Research on Innovative Areas (Research in a Proposed Research Area)” should verify the relation with “Principal Investigators or Co-Investigators (*kenkyū-buntansha*) of research projects who try to make a duplicate application” in the relevant section of the “Table of Restrictions on Duplication”.
  - B The “Co-Investigator (*kenkyū-buntansha*) of Summarizing Group Research Projects in Scientific Research on Innovative Areas (Research in a Proposed Research Area)” should verify the **relation with “Participation Form to General Planned Research (Planned Research Other than Summarizing Group Research Projects) (Principal Investigators and Co-Investigators (*kenkyū-buntansha*))” and with “Principal Investigators or Co-Investigators (*kenkyū-buntansha*) of research projects who try to make a duplicate**

**application**” in the “Table of Restrictions on Duplication”.

- 5) In case the continued research project which needs to be abandoned according to the restriction on the receiving of grants ① has FY2014 as the final fiscal year, and ② has been selected before FY2012, the Principal Investigator should submit a report on the research achievements (a working paper) and other matters related to the research project in question between June 20 and June 30, 2015.
- 6) For research categories for which the Ministry of Education, Culture, Sports, Science and Technology (MEXT) organizes a call for proposals, applicants should verify Attached Table 1 for restrictions on duplicate applications related to “a person who tries to apply as Principal Investigator or Co-Investigator (kenkyū-buntansha)” or “a person who has already become Principal Investigator or Co-Investigator (kenkyū-buntansha) of a research project that is scheduled to be continued in FY2014 (continued research project)”.
- 7) **From FY2014 on, in the case where JSPS Research Fellows (SPD, PD, or RPD) have become eligible in their host research institution, it is possible for them to apply for the research categories “publicly invited research of Scientific Research on Innovative Areas (Research in a Proposed Research Area)”, “Scientific Research (B/C), “Challenging Exploratory Research” and “Grant-in-Aid for Young Scientists (A/B)”.**  
**Even if applicants do not receive a Grant-in-Aid for JSPS Fellows, they should verify the section “Grant-in-Aid for JSPS Fellows (Fellow)” in the “Table of Restrictions on Duplication” for restrictions on duplicate applications.**
- 8) **If applicants applied for research categories to which the restrictions on duplicate applications apply (“Specially Promoted Research”, “Summarizing Group, Research Projects in Scientific Research on Innovative Areas (Research in a Proposed Research Area)”, “Scientific Research (S/A)” and “Grant-in-Aid for Research Activity Start-up”), and subsequently they are employed as JSPS Fellows, and the research category for which they applied is also adopted, they have to select one of the two projects.**  
**Moreover, during the period of their employment, JSPS Research Fellows (SPD, PD, or RPD) cannot apply for research categories to which the restrictions on duplicate applications apply.**  
**Therefore, if the application has been accepted in the Electronic Application System, it may happen, in some cases, that afterwards it is not accepted for review, due to the Restrictions on Duplicate Applications. The researcher should sufficiently verify this before the submission of the application documents.**

**(5) Special cases in the restrictions on duplicate applications**

**(Application for a grant for the fiscal year before the final fiscal year of a research project)**

1) When a Principal Investigator of a research project wishes to restructure the research project in the light of developments in the research in question, and the research project (continued research project) belongs to the type “Specially Promoted Research”, “Scientific Research” (except “Scientific Research (B/C)” screening division “Generative Research Fields”) or “Grant-in-Aid for Young Scientists”, **the research period is 4 years or more, and FY2014 is the last fiscal year of the research period**, then he or she may apply for an “Application for a grant for the fiscal year before the final fiscal year of a research project”.

Moreover, in accordance with these special cases, the number of projects for which a new application can be made, based on one continued research project, is limited to **one project**.

2) The research categories for which new applications may be made, as “Application for a grant for the fiscal year before the final fiscal year of a research project”, are “Specially Promoted Research”, and “Scientific Research” (except “Scientific Research (B/C)” screening division “Generative Research Fields”). However, the only research category for which a new application can be made, based on research projects of the category “Grant-in-Aid for Young Scientists (S/A/B)”, is “Scientific Research”.

3) It is not possible to make a new application for “Scientific Research (B/C)” screening division “Generative Research Fields”, as “Application for a grant for the fiscal year before the final fiscal year of a research project”. Moreover, it is not possible to make a new application based on “Scientific Research (B/C)” screening division “Generative Research Fields”.

4) **The restrictions on duplicate applications do not apply** to cases where there is, on the one hand, a new application for a research project of the type “Application for a grant for the fiscal year before the final fiscal year of a research project” and, on the other hand, a continued research project on which the new application is based.

However, the restrictions on duplicate applications do apply to cases where there are, on the one hand, these projects and, on the other hand, other research projects under the supervision of the same Principal Investigator for which an application has been made (including continued research projects).

5) **When the research project for which a new application has been made is selected, the KAKENHI of FY2014 for the continued research project on which the new application is**

**based will, as a general rule, not be paid. Even in case when the grant has been paid, the full amount of the grant should be refunded.** For this reason, the proposal for grant-in-aid for a research project for which a new application is made should include a part of the budget necessary for the implementation of the continued research project for FY2014.

Moreover, in this case, the Principal Investigator should submit a report on the research achievements (a working paper) and other matters related to the continued research project in question between June 20 and June 30, 2014. Therefore, he or she should include the budget for the report, etc. in question, when completing the preparations.

**(Handling of Restrictions on Duplicate Applications Brought About by an Extension of the Research Period)**

- 1) For KAKENHI (Multi-year Fund) and KAKENHI (Partial Multi-year Fund), **the restrictions on duplicate applications do not apply** to cases where there is, on the one hand, a research project of which the research period has been extended and, on the other hand, a new research project for which the researcher tries to apply, on condition he or she extend the research period in the final fiscal year (except in cases where the researcher obtained maternity leave or childcare leave).
- 2) However, the restrictions on duplicate applications do apply to cases where there is, on the one hand, a new research project for which the researcher tries to apply and, on the other hand, another research project for which the same Principal Investigator applies (including continued research projects).

# Attached Table 1 Table of Restrictions on Duplication

1 – 1) Type “Principal Investigator (New/Continued) (Section A) → Principal Investigator (Section B)”

This table shows the restrictions on duplication in case of "a person who tries to apply as Principal Investigator for a research project mentioned in section A (research categories for which JSPS organizes a call for proposals), or a person who has already become Principal Investigator of a research project that is scheduled to be continued in FY2013 (continued research project) mentioned in section A" applies as Principal Investigator for mentioned in section B.

Section B Section A			Specially Promoted Research	Scientific Research (S)	Scientific Research (A)		Scientific Research (B)			Scientific Research ©		Grant-in-Aid for Young Scientists(A)	Grant-in-Aid for Young Scientists(B)	Scientific Research on Priority Areas			Challenging Exploratory Research	
					General	Overseas Academic Research	General	Overseas Academic Research	Generative Research Fields	General	Overseas Academic Research			Generative Research Fields	Research in a proposed research area			
															Screening group	Planned research		Publicly invited research
					New	New	New	New	New	New	New			New	New	New		New
PI	PI	PI	PI	PI	PI	PI	PI	PI	PI	PI	PI	PI	PI	PI	PI			
Specially Promoted Research	New	PI	—	■	■	■	■	■	■	■	■	■	■	■	×	■	■	■
	Continued	PI	—	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Scientific Research (S)	New	PI	□	—	■	■	×	×	■	×	■	×	×	□				
	Continued	PI	□	—	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲				
Scientific Research (A)	General	New	PI	□	□	—	★	×	★		×		×	×				
		Continued	PI	□	▲	—	★	▲	★		▲		▲	▲				
	Overseas Academic Research	New	PI	□	□	★	—	★	×		★		×	×				
		Continued	PI	□	▲	★	—	★	▲		★		▲	▲				
Scientific Research (B)	General	New	PI	□	×	×	★	—	★		×		×	×				
		Continued	PI	□	▲	▲	★	—	★		▲		▲	▲				
	Overseas Academic Research	New	PI	□	×	★	×	★	—		★		×	×				
		Continued	PI	□	▲	★	▲	★	—		★		▲	▲				
	Generative Research Fields	New	PI	□	□								—	—	□	□		
		Continued	PI	□	□								—	—	□	□		
Scientific Research (C)	General	New	PI	□	×	×	★	×	★		—		×	×				×
		Continued	PI	□	▲	▲	★	▲	★		—		▲	▲				▲
	Generative Research Fields	New	PI	□	□								—	—	□	□		
		Continued	PI	□	□								—	—	□	□		
Grant-in-Aid for Young Scientists(S)	Continued	PI	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Grant-in-Aid for Young Scientists(A)	New	PI	□	×	×	×	×	×		×		—	×					
	Continued	PI	□	▲	▲	▲	▲	▲	▲	▲		—	▲					
Grant-in-Aid for Young Scientists(B)	New	PI	□	×	×	×	×	×		×		×	—				×	
	Continued	PI	□	▲	▲	▲	▲	▲	▲	▲		▲	—				▲	
Challenging Exploratory Research	New	PI	□							×			×				—	
	Continued	PI	□							▲			▲				—	
Grant-in-Aid for Research Activity Start-up	Continued	PI	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	
JSPS Fellows (JSPS Research Fellow)	Continued	PI	▲	▲	▲	▲								▲	▲			

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

—: A researcher can only apply for one research project in one and the same research category (screening division) (In case he or she has a continued research project mentioned in section A, he or she cannot apply for a research project mentioned in section B)

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

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

★: As a rule duplicate applications are not accepted. (This does not apply to cases where it is necessary to conduct two clearly different research projects within the same fiscal year.)

1-2) Type “Principal Investigator (New/Continued) (Section A) → Principal Investigator (Section B)”

This table shows the restrictions on duplication in case of "a person who tries to apply as Principal Investigator for a research project mentioned in section A (research categories for which MEXT organizes a call for proposals), or a person who has already become Principal Investigator of a research project that is scheduled to be continued in FY2014 (continued research project) mentioned in section A" applies as Principal Investigator for mentioned in section B.

Section A				Section		Scientific Research (A)			Scientific Research (B)			Scientific Research (C)		Grant-in-Aid for Young Scientists(A)	Grant-in-Aid for Young Scientists(B)	Challenging Exploratory Research	
				Specially Promoted Research		Scientific Research (S)		General	Overseas Academic Research	General	Overseas Academic Research	Generative Research Fields	General	Generative Research Fields			
				New	New	New	New	New	New	New	New	New	New	New	New	New	New
				PI	PI	PI	PI	PI	PI	PI	PI	PI	PI	PI	PI	PI	PI
Scientific Research on Innovative Areas (Research in a proposed research area)	Summarizing group	New	PI	×	■						■		■				
		Continued	PI	▲	▲						▲		▲				
	Planned research	New	PI	□							■		■				
		Continued	PI	□							▲		▲				
	Publicly invited research	New	PI	□													
		Continued	PI	□													

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 section A, he or she cannot apply for a research project mentioned in section B).

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



2-1) Type “Principal Investigator (New/Continued) (Section A) → Co-Investigator (kenkyū-buntansha) (Section B)”

This table shows the restrictions on duplication in case of "a person who tries to apply as Principal Investigator for a research project mentioned in section A (research categories for which JSPS organizes a call for proposals), or a person who has already become Principal Investigator of a research project that is scheduled to be continued in FY2014 (continued research project) mentioned in section A" participates in a research project mentioned in section B as Co-Investigator (kenkyū-buntansha).

Section B			Specially Promoted Research	Scientific Research (S)	Scientific Research (A)		Scientific Research (B)			Scientific Research (C)		Challenging Exploratory Research	Scientific Research on Innovative Areas
					General	Overseas Academic Research	General	Overseas Academic Research	Generative Research Fields	General	Generative Research Fields		Research in a proposed research area
													Planned research
					New	New	New	New	New	New	New		New
Section A			Co-I (kenkyū-buntansha)	Co-I (kenkyū-buntansha)	Co-I (kenkyū-buntansha)	Co-I (kenkyū-buntansha)	Co-I (kenkyū-buntansha)	Co-I (kenkyū-buntansha)	Co-I (kenkyū-buntansha)	Co-I (kenkyū-buntansha)	Co-I (kenkyū-buntansha)	Co-I (kenkyū-buntansha)	
Specially Promoted Research	New	PI	×	■	■	■	■	■	■	■	■	■	■
	Continued	PI	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Scientific Research (S)	New	PI											
	Continued	PI											
Scientific Research (A)	General	New	PI										
		Continued	PI										
	Overseas Academic Research	New	PI										
		Continued	PI										
Scientific Research (B)	General	New	PI										
		Continued	PI										
	Overseas Academic Research	New	PI										
		Continued	PI										
	Generative Research Fields	New	PI										
		Continued	PI										
Scientific Research (C)	General	New	PI										
		Continued	PI										
	Generative Research Fields	New	PI										
		Continued	PI										
Grant-in-Aid for Young Scientists(S)	Continued	PI											
Grant-in-Aid for Young Scientists(A)	New	PI											
	Continued	PI											
Grant-in-Aid for Young Scientists(B)	New	PI											
	Continued	PI											
Challenging Exploratory Research	New	PI											
	Continued	PI											
Grant-in-Aid for Research Activity Start-up	Continued	PI											
JSPS Fellows (JSPS Research Fellow)	Continued	PI											

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 section A, he or she cannot apply for a research project mentioned in section B).

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

2—2) Type “Principal Investigator (New/Continued) (Section A) → Co-Investigator (kenkyū-buntansha)(Section B)”

This table shows the restrictions on duplication in case of "a person who tries to apply as Principal Investigator for a research project mentioned in section A (research categories for which MEXT organizes a call for proposals), or a person who has already become Principal Investigator of a research project that is scheduled to be continued in FY2014 (continued research project) mentioned in section A" participates in a research project mentioned in section B as Co-Investigator (kenkyū-buntansha).

Section A				Section B							Challenging Exploratory Research		
				Specially Promoted Research	Scientific Research (S)	Scientific Research (A)		Scientific Research (B)				Scientific Research (C)	
						General	Overseas Academic Research	General	Overseas Academic Research	Generative Research Fields		General	Generative Research Fields
				New	New	New	New	New	New	New		New	New
Co-I (kenkyu- buntansha)	Co-I (kenkyu- buntansha)	Co-I (kenkyu- buntansha)	Co-I (kenkyu- buntansha)	Co-I (kenkyu- buntansha)	Co-I (kenkyu- buntansha)	Co-I (kenkyu- buntansha)	Co-I (kenkyu- buntansha)	Co-I (kenkyu- buntansha)	Co-I (kenkyu- buntansha)				
Scientific Research on Innovative Areas (Research in a proposed research area)	Summarizing group	New	PI	×									
		Continued	PI	▲									
	Planned research	New	PI										
		Continued	PI										
	Publicly invited research	New	PI										
		Continued	PI										

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 section A, he or she cannot apply for a research project mentioned in section B).

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

3-1) Type “Co-Investigator (kenkyū-buntansha) (New/Continued) (Section A) → Principal Investigator (Section B)”

This table shows the restrictions on duplication in case of "a person who tries to participate as Co-Investigator (kenkyū-buntansha) in a research project mentioned in section A (research categories for which JSPS organizes a call for proposals), or a person who has already become Co-Investigator (kenkyū-buntansha) of a research project that is scheduled to be continued in FY2014(continued research project) mentioned in section A" applies as Principal Investigator for mentioned in section B.

Section B  Section A			Specially Promoted Research	Scientific Research (S)	Scientific Research (A)		Scientific Research (B)			Scientific Research (C)		Grant-in-Aid for Young Scientists(A)	Grant-in-Aid for Young Scientists(B)	Challenging Exploratory Research	JSPS Fellows (JSPS Research Fellow)	Scientific Research on Priority Areas			
					General	Overseas Academic Research	General	Overseas Research	Generative Research Fields	General	Generative Research Fields					Research in a proposed research area			
			New	Continued	New	Continued	New	Continued	New	Continued	New	Continued	New	Continued	New	Planned research	Publicly invited research		
			PI	PI	PI	PI	PI	PI	PI	PI	PI	PI	PI	PI	PI	PI	PI		
Specially Promoted Research	New	Co-I (kenkyu-buntansha)	×														×		
	Continued	Co-I (kenkyu-buntansha)	▲															▲	
Scientific Research (S)	New	Co-I (kenkyu-buntansha)	□																
	Continued	Co-I (kenkyu-buntansha)	□																
Scientific Research (A)	General	New	Co-I (kenkyu-buntansha)	□															
		Continued	Co-I (kenkyu-buntansha)	□															
	Overseas Academic Research	New	Co-I (kenkyu-buntansha)	□															
		Continued	Co-I (kenkyu-buntansha)	□															
Scientific Research (B)	General	New	Co-I (kenkyu-buntansha)	□															
		Continued	Co-I (kenkyu-buntansha)	□															
	Overseas Academic Research	New	Co-I (kenkyu-buntansha)	□															
		Continued	Co-I (kenkyu-buntansha)	□															
	Generative Research Fields	New	Co-I (kenkyu-buntansha)	□															
		Continued	Co-I (kenkyu-buntansha)	□															
Scientific Research (C)	General	New	Co-I (kenkyu-buntansha)	□															
		Continued	Co-I (kenkyu-buntansha)	□															
	Generative Research Fields	New	Co-I (kenkyu-buntansha)	□															
		Continued	Co-I (kenkyu-buntansha)	□															
Challenging Exploratory Research	New	Co-I (kenkyu-buntansha)	□																
	Continued	Co-I (kenkyu-buntansha)	□																

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 section A, he or she cannot apply for a research project mentioned in section B).

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

3-2) Type “Co-Investigator (kenkyū-buntansha) (New/Continued) (Section A) → Principal Investigator (Section B)”

This table shows the restrictions on duplication in case of "a person who tries to participate as Co-Investigator (kenkyū-buntansha) in a research project mentioned in section A (research categories for which MEXT organizes a call for proposals), or a person who has already become Co-Investigator (kenkyū-buntansha) of a research project that is scheduled to be continued in FY2014 (continued research project) mentioned in section A" applies as Principal Investigator for mentioned in section B.

Section A				Section B												
				Specially Promoted Research	Scientific Research (S)	Scientific Research (A)		Scientific Research (B)			Scientific Research (C)		Grant-in-Aid for Young Scientists(A)	Grant-in-Aid for Young Scientists(B)	Challenging Exploratory Research	JSPS Fellows (JSPS Research Fellow)
						General	Overseas Academic Research	General	Overseas Academic Research	Generative Research Fields	General	Generative Research Fields				
				New	New	New	New	New	New	New	New	New	New	New	New	
				PI	PI	PI	PI	PI	PI	PI	PI	PI	PI	PI	PI	
Scientific Research on Innovative Areas (Research in a proposed research area)	Planned research	New	Co-I (kenkyu-buntansha)	<input type="checkbox"/>												
		Continued	Co-I (kenkyu-buntansha)	<input type="checkbox"/>												

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

: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. Preparing the Application (Proposal for Grant-in-Aid) and Submitting the Application (Proposal for Grant-in-Aid)**

The document necessary for the application is the Proposal for Grant-in-Aid. The Proposal for Grant-in-Aid consists of two parts: the Application Information (Items to be filled in on the form on the website), which is the first part, and the Project Description File (Items to be entered in the attached file), which is the second part.

The Principal Investigator should prepare the Proposal for Grant-in-Aid (PDF file) by entering the application information (Items to be filled in on the form on the website), and by uploading the separately prepared Project Description File (Items to be entered in the attached file) to the Electronic Application System. Then he or she should submit (send) the Proposal for Grant-in-Aid to the research institution he or she belongs to, by the deadline set by the research institution.

Details on the preparation of the Proposal for Grant-in-Aid and the way how to apply are as follows. The applicant should verify this information.

#### **(1) Preparing the Proposal for Grant-in-Aid**

When applying, **the applicant should access the Electronic Application System using the e-Rad ID and Password that is provided by the research institution and prepare the Proposal for Grant-in-Aid.**

#### **On the Proposal for Grant-in-Aid**

A proposal for grant-in-aid consists of the following two parts:

**First part:** Enter **the application information (to be entered in the website)** (\*1) in the electronic application system.

(\*1) Information to be entered by the Principal Investigator in the website via the electronic application system includes the title of proposed project, basic data on the proposed project, like the budget for which the application is made, basic data on the project members, etc.

**Second part:** Download **the project description file** (\*2) from the section “Grants-in-Aid for Scientific Research - KAKENHI” of the JSPS website (<http://www.jsps.go.jp/j-grantsinaid/index.html>), and prepare the proposal for grant-in-aid (PDF file) by uploading it to the “electronic application system”.

**(Paper-based applications will not be accepted.)**

(\*2) Details on the research project including the purpose of the research, the research plan and research methods should be entered.

Research category	Proposal for Grant-in-Aid	
	First part	Second part
	Application information (to be entered in the website)	Project Description File
Specially Promoted Research (New) (English Version)	To be entered in the electronic application system	S-1-1 (1)
Specially Promoted Research (New) (Japanese Version)		S-1-1 (2)
Specially Promoted Research (Continued)		S-1-2
Scientific Research (S)		S-1-6
Scientific Research (A) Research related to the screening panel for “General”		S-1-7
Research related to the screening panel for “Overseas Academic Research”		S-1-9
Scientific Research (B) Research related to the screening panel for “General”		S-1-7
Research related to the screening panel for “Overseas Academic Research”		S-1-9
Research related to the screening panel for “Generative Research Fields”		T-1-1
Scientific Research (C) Research related to the screening panel for “General”		S-1-8
Research related to the screening panel for “Generative Research Fields”		T-1-2
Challenging Exploratory Research		S-1-10
Grant-in-Aid for Young Scientists (A)		S-1-12
Grant-in-Aid for Young Scientists (B)		S-1-13

Continued Research Project (in the case of a major change in the research project)		S-1-14
--	--	--------

※ The form for the Project Description File (Items to be entered in the attached file) can be downloaded from the section “Grants-in-Aid for Scientific Research - KAKENHI” of the JSPS website (<http://www.jsps.go.jp/j-grantsinaid/index.html>) even before the obtaining of the e-Rad ID and password.

## (2) Application via the Electronic Application System

- 1) For “Specially Promoted Research”, researchers who apply as Principal Investigators should prepare the Proposal for Grant-in-Aid (PDF file) by entering the Application Information (Items to be filled in on the form on the website), and by uploading the separately prepared Project Description File (Items to be entered in the attached file) to the Electronic Application System, based on the “Procedures for Preparing and Entering a Proposal for Grant-in-Aid for Specially Promoted Research (New/Continued)”.
- 2) For the other research categories, they should prepare the Proposal for Grant-in-Aid (PDF file) by entering the Application Information (Items to be filled in on the form on the website), based on the “FY2014 Procedures for Preparing and Entering Application Information (to be entered in the Website) (Scientific Research (S/A/B/C), Challenging Exploratory Research, and Grant-in-Aid for Young Scientists (A/B))”, and by uploading the separately prepared Project Description File (Items to be entered in the attached file) to the Electronic Application System, based on the “Procedures for Preparing and Entering a Proposal for Grant-in-Aid” for the specific research category (screening division) they are applying for.
- 3) A copy of the proposal for grant-in-aid **in black-and-white (gray scale) print** is sent to the screening committee. Therefore, when preparing the proposal for grant-in-aid, the applicant should pay attention not to make a version of which the content becomes unclear when copied.
- 4) The research institution to which the Principal Investigator belongs collects and submits the Proposals for Grant-in-Aid.  
Therefore, Principal Investigators **should submit (send) their application forms to the research institution to which they belong by the deadline set by the research institution in question. (It is not possible to submit (send) the application forms directly to JSPS.)**

Moreover, when submitting (sending) the forms, applicants should sufficiently verify the contents of the Proposal for Grant-in-Aid (PDF file) that they prepared, and subsequently perform the “check completed and submission” process. (This means that they should submit the Proposal for Grant-in-Aid (PDF file) to the research institution to which they belong.) Furthermore, it is not possible to make corrections or other modifications to the Proposal for Grant-in-Aid (PDF file) of each planned research for which the research institution has already performed the “approval” process.

- 5) The personal information included in the Proposal for Grant-in-Aid will be used to eliminate unreasonable reduplication and excessive concentration of competitive funds and to carry out service on KAKENHI. (This also includes offering personal information to external private enterprises in charge of electronic processing and management of the data.) The personal information included in the application forms will also be provided to the e-Rad. (It may happen that information will be supplied to the Cabinet Office through e-Rad. Moreover, the applicant may be requested to cooperate in various kinds of work, the verification of information and other matters, in order to prepare this information.)

Moreover, information concerning adopted research projects (title of proposed project, name of the Principal Investigator, amount planned to be provided, etc.) is considered to be “information planned to be made public”, as laid down in Article 5, paragraph 1, item 1 of the “Act on Access to Information Held by Independent Administrative Agencies” (Act No. 140 of 2001). This information will be disclosed through press release materials, the database of the National Institute of Informatics, and other means.

Information like professional affiliation, name, etc. of the Principal Investigator of the selected research project will be entered in the database of JSPS screening committee candidates, as the need arises. A request for updating the database will be made annually through the research institution to which the Principal Investigators belong (planned for April).

### **Issues that Need to Be Considered When Preparing the Proposal for Grant-in-Aid**

When preparing the Proposal for KAKENHI, the applicant should check the following points and verify whether there are no flaws in the content.

#### **1. Whether or not it is an Ineligible Research Project**

The following research projects are not eligible:

- A) Research projects which merely aim at purchasing ready-made research equipment.



- B) Research projects which aim at producing large-size research equipment and similar things which should be funded by other budgets.
- C) Research projects which directly aim at developing and selling goods and services (including market trend surveys on the development and sale of goods and services).
- D) Funded research which is carried out as commercial business.
- E) Research projects with a budget of **less than 100,000 yen** in any of the fiscal years of the research period.

## 2. Whether the following requirements are met for the Project Members

When necessary, the Principal Investigator (See page 49 1)) can set up a team of project members together with a Co-Investigator (*kenkyū-buntansha*) (See page 50 )), a Co-Investigator (*renkei-kenkyūsha*) (See page 50 3)), and/or a Research Collaborator (See page 51 4), according to the nature of the research project.

Moreover, **regarding the Co-Investigator (*kenkyū-buntansha*) and the Co-Investigator (*renkei-kenkyūsha*), like in the case of the Principal Investigator, the research institution <sup>(Note)</sup> needs to verify whether, at the time of the application, the following requirements are met.**

However, Research Collaborators do not necessarily need to be registered in e-Rad.

Furthermore, if JSPS Research Fellows (SPD, PD or RPD) meet the following application requirements in their host research institutions, they can also participate in research projects as Co-Investigators (*kenkyū-buntansha*) or Co-Investigators (*renkei-kenkyūsha*). In such cases, there are no restrictions on the research categories in which they can participate.

Moreover, JSPS Research Fellows (DC), Foreign JSPS Fellows and students, such as, for example, graduate students cannot become Principal Investigators. They can neither become Co-Investigators (*kenkyū-buntansha*) and Co-Investigators (*renkei-kenkyūsha*).

### Requirements

- 1) **The researcher should belong to the research institution as a person who has *inter alia* the duty to perform research activities within the research institution in question** (irrespective of whether the work is paid or unpaid, full-time or part-time. Moreover, it is not necessary for the researcher to perform these research activities as such as his or her main duty.)
- 2) **The researcher should actually be engaged in research activities at the research institution in question** (This does not apply to cases where he or she is only engaged as a research assistant.)
- 3) **The researcher is not a graduate student or any other category of student.** (However, this

does not apply to persons who have a position consisting of conducting research activities in the research institution to which they belong, as their main work (e.g., university teaching staff, researchers from companies, etc.), and who also have a student status.)

Note: Research institutions as prescribed in Article 2 of the Rules for the Handling of Grants-in-Aid for Scientific Research (announced by the Ministry of Education)

**(References) Requirements that need to be met by the research institution(see page104)**

Requirements

- If a KAKENHI is given, the research activity should be conducted as an activity of the research institution in question.
- If a KAKENHI is given, the research institution should carry out the management of the KAKENHI.

Research grant employees, as a rule, need to concentrate on their employment related work according to their employment contracts. Therefore, considering the working hours they need to allot to the employment related work, they cannot apply for Grants-in-Aid for Scientific Research themselves.

However, if they provide a clear explanation on the time they can spend besides their employment related work, and if during this time they themselves attempt to conduct research using a Grant-in-Aid for Scientific Research, on their own initiative, it is possible for them to apply for Grants-in-Aid for Scientific Research, on condition that the following points have been verified in the research institution. In this case, they can apply as Principal Investigator, and they can also become Co-Investigator (*kenkyū-buntansha*), Co-Investigator (*renkei-kenkyūsha*), or other project members.

- It has been determined in the employment contract that research grant employees themselves can conduct research on their own initiative, besides the employment related work.
- The employment related work and work devoted to research that they conduct themselves on their own initiative has clearly been divided in the working hours and the effort.
- Time that can be allotted to research which they attempt to conduct themselves on their own initiative has sufficiently been secured, besides the time spent for employment related work.

**Principal Investigators and Co-Investigators (*kenkyū-buntansha*) are 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), and it has been decided that, in case they commit inappropriate use of the grants-in-aid or the like, no KAKENHI will be offered, for a fixed period of time.**

In addition, it may happen that researchers are treated as indicated below, even if their researcher information has been registered in e-Rad as “Eligible to Apply for Grants-in-Aid for Research”.

- If it is judged in the research institution to which researchers belong that it is not appropriate to let them conduct their research activities as activities of the research institution in question, it may happen that the research institution does not recognize the application, and it may happen that the application for funding by these researchers in question is not recognized and that the application for funding of the KAKENHI is rejected.
- No KAKENHI will be funded, if there is a new application for Grants-in-Aid for Scientific Research from researchers who do not submit the report on the research achievements at the end of the research, without any reason, even if their research has been adopted after screening. Moreover, if researchers have failed, without good reason, to submit the scheduled report on the research achievements, then implementation of other Grants-in-Aid for Scientific Research due to be implemented in the same fiscal year will be suspended.

#### **1) Principal Investigator (The applicant)**

(A) The Principal Investigator is a member of a funded project and is the researcher who assumes full responsibility for the implementation of the research project (including the summarizing of the research achievements).

Moreover, persons who are expected to become unable to carry out their responsibility as a Principal Investigator, for example due to the loss of their applicant eligibility during the period of research, should avoid becoming a Principal Investigator. (See note.)

(B) When setting up a team of project members, the Principal Investigator should without fail collect a “Written Consent of the Co-Investigator (*kenkyū-buntansha*) (for other institution)”, in case the Co-Investigator (*kenkyū-buntansha*) in question belongs to a different research institution, or a “Written Consent of the Co-Investigator (*kenkyū-buntansha*) (for same institution)”, in case the Co-Investigator (*kenkyū-buntansha*) belongs to the same institution, and retain it.

(Note) The Principal Investigator is the researcher who assumes full responsibility for the implementation of the research plan, and thus plays a central role. Persons who, at the time they apply, are expected to lose their eligibility to apply during the research period, due to retirement or other reasons, and thus become unable to carry out their responsibility, are requested to avoid becoming a Principal Investigator.

For this reason, replacements of Principal Investigators will not be accepted anymore.

However, for “Summarizing Group Research Projects” of “Scientific Research on Innovative Areas (Research in a proposed research area)”, it may happen that, after completion of the necessary procedures, replacements of Principal Investigators (or Principal Investigator of Innovative Areas) are accepted.

(C) Apart from registration in e-Rad of the information on the researchers as “Eligible to Apply for KAKENHI”, it is essential that Principal Investigators are not designated as ineligible for receipt of funding in FY2014, because they committed fraudulent use, fraudulent receipt of grants or fraudulent acts using KAKENHI or other competitive funding.

## 2) Co-Investigator (*kenkyū-buntansha*)

(A) The Co-Investigator (*kenkyū-buntansha*) is a member of the funded project, and engages in research activity, collaborating with the Principal Investigator in the implementation of the research project and sharing the responsibility for the implementation of the research as a funded project. He or she has to receive a share of the grant-in-aid. (Even when the Co-Investigator (*kenkyū-buntansha*) belongs to the same research institution as the Principal Investigator, he or she should be allotted a share of the expenses.)

Moreover, a person who is expected to become unable to carry out one’s responsibility as a Co-Investigator (*kenkyū-buntansha*), for example due to the loss of one’s applicant eligibility during the period of research, should avoid becoming a Co-Investigator (*kenkyū-buntansha*).

(B) Apart from registration in e-Rad of the information on the researchers as “Eligible to Apply for KAKENHI”, it is essential, in the same manner as for Principal Investigators, that Co-Investigators (*kenkyū-buntansha*) are not designated as ineligible for receipt of funding in FY2014, because they committed fraudulent use, fraudulent receipt of grants or fraudulent acts using KAKENHI or other competitive funding.

## 3) Co-Investigator (*renkei-kenkyūsha*)

(A) The Co-Investigator (*renkei-kenkyūsha*) is a researcher who participates in the research project as a project member, under the responsibility of the Principal Investigator and the Co-Investigator(s) (*kenkyū-buntansha*).

Since the Co-Investigator (*renkei-kenkyūsha*) is not a member of the funded project, he or she cannot receive a share of the KAKENHI, and cannot use subsidies on his/her own initiative.

(B) It is essential that Co-Investigators (*renkei-kenkyūsha*) register the information on the researchers in e-Rad as “Eligible to Apply for KAKENHI”, in the same manner as for Principal Investigators and Co-Investigators (*kenkyū-buntansha*).

※ The difference between “Co-Investigator (*kenkyū-buntansha*)” and “Co-Investigator (*renkei-kenkyūsha*)” is a difference related to the positioning in the KAKENHI system. It does not refer to the relative importance of the researchers’ relative roles in the research activity.

#### **4) Research Collaborator**

(A) A Research Collaborator is somebody who cooperates in the implementation of a research project other than the Principal Investigator, the Co-Investigator (*kenkyū-buntansha*) and the Co-Investigator (*renkei-kenkyūsha*).

(For example, a postdoctoral researcher, a research assistant (RA), a Fellow of the Japan Society for the Promotion of Science (JSPS Research Fellow) (a DC, or a SPD, PD or RPD who does not meet the application requirements in his or her host research institution), a researcher who belongs to an overseas research institution, a researcher who works for a corporation that is not recognized according to Article 2 of the Rules for the Handling of Grants-in-Aid for Scientific Research, other persons offering research support, such as technical experts and intellectual property specialists, etc.)

(B) It is not necessary for Research Collaborators to register the information on the researchers in e-Rad as “Eligible to Apply for KAKENHI”.

### **3. Whether the following requirements are met for the Budget**

#### **1) Eligible costs (direct costs)**

The budget necessary for the implementation of the research plan (including the budget necessary for summarizing the research achievements) is eligible.

\* In case of research projects where in any of the fiscal years any of the costs like “equipment”, “travel expenses” or “personnel expenditure and remuneration” exceeds 90%, the applicant should write down in the proposal for

grant-in-aid the reasons why these costs in question are necessary for the implantation of the research.

## 2) Ineligible costs

### The following costs are not included in the funding:

- A Costs for buildings and other facilities (excluding the costs for minor installations which became necessary because of the introduction of goods that have been purchased by means of direct costs)
- B Costs for handling accidents or disasters that occurred during the implementation of funded project
- C Personnel expenditure and remuneration for the Principal Investigator or Co-Investigator(s) (*kenkyū-buntansha*)
- D Other costs which fall under indirect costs\*

\* Indirect costs are costs necessary for the management of the research institution and other things that arise during the implementation of the research project (corresponding with 30% of the amount of the direct costs). The costs are used by the research institution.

This time, it is scheduled to set up indirect costs for the research categories for which a call for proposals is organized. However, the Principal Investigator does not need to state those indirect costs in the application documents.

## 4. When applying, the applicant should select a desired area for screening as follows

### 1) In the case of an application for “Specially Promoted Research”

When applying, please make sure to select, according to the content of the research project, one desired area for screening from “Humanities and Social Sciences”, “Science and Engineering” or “Biological Sciences”. Moreover, if you select “Science and Engineering”, please select one screening division from the subcategories “Mathematics/Physics”, “Chemistry”, or “Engineering”, which you think is the most closely related to your research project.

### 2) In case of an application for “Scientific Research” (screening division “General”), “Challenging Exploratory Research” and “Grant-in-Aid for Young Scientists (A)”

When applying, please make sure to **select**, according to the content of the research project, **one appropriate research field** from Attached Table 2 “List of Categories, Areas, Disciplines and Research Fields for FY2014 Grants-in-Aid for Scientific Research” (hereinafter called “List of Research Fields” ; see pages 55-57), which is a classification table showing the desired areas for screening. In addition, please make sure to **select one keyword which the applicant thinks is the most closely related to the content of his/her research project within the selected research field** from Attached Table 3 “Appendix Table of Keywords” (hereinafter called “Table of Keywords”;

see pages 62-98).

### **About the “List of Disciplines and Research Fields with a Time Limit” (special cases in “Scientific Research (C)”)**

In order to be able to react flexibly to trends in scientific research, a “**List of Disciplines and Research Fields with a Time Limit**” (see pages 58-61), has been set up, as a table separate from the “List of Research Fields”. This list is operated in a flexible way, within the limits of a set period. Only for research projects that fall into the category of “Scientific Research (C) (General)”, one area can be selected as a desired area for screening from this “List of Disciplines and Research Fields with a Time Limit”. Moreover, **the research period is 3 to 5 years, regardless of the set period of the research area.**

### **3) In case of an application for “Grant-in-Aid for Young Scientists (B)”**

When applying, please make sure to **select**, according to the content of the research project, **one or (if you desire screening in multiple areas for new and merged research plans) two appropriate research fields** from the “List of Research Fields”, which is a classification table showing the desired areas for screening. In addition, please make sure to select from the “Table of Keywords” **one keyword which you think is the most closely related to the content of your research project within the selected research field, if you selected one research field, OR one keyword for each research field, one by one (i.e. two in total), if you selected two research fields.**

○ Outline of the screening of research plans for which two research fields have been selected

- In the same manner as for research plans for which one research field has been selected, **two-stage screening** will be carried out.
- During the first stage of the screening, the first-stage screening committee members (judges) for “Grant-in-Aid for Young Scientists (B)” will carry out a document-based screening for each of the two selected research fields.
- During the second stage of the screening, a collegial screening will be carried out, based on the screening results of the first stage, by screening committee members (judges) who are different from the first-stage screening committee members. This collegial screening will take place in committees that are different from the committees that screen the research plans for which one research field has been selected. More specifically, these committees are, first, a committee for each of the four categories (i.e. Comprehensive Fields, Humanities and Social Sciences, Science and Engineering, Biological Sciences) that only screens research plans for which two research fields have been selected and, or, secondly, a committee that screens research plans in which research fields that exceed the four categories have been selected.

### **4) In case of an application for “Scientific Research” (screening division “Overseas Academic Research”)**

When applying, please **make sure to select one area** you wish to have screened from the following 17 areas, and **one research field** which you think is the most closely related to your research project.

	<b>Desired area for screening</b>
<b>Humanities and Social Sciences</b>	1) Humanities A (philosophy, literature, linguistics, the arts)
	2) Humanities B (history, archaeology)
	3) Humanities C (human geography, cultural anthropology)
	4) Humanities D (Geography, Area studies, and others which do not fall under Humanities A, B, or C)
	5) Social Sciences A (law, Politics)
	6) Social Sciences B (economics, business administration)
	7) Social Sciences C (sociology)
	8) Social Sciences D (psychology, education)
<b>Science and Engineering</b>	9) Mathematical and physical sciences A (earth and planetary science)
	10) Mathematical and physical sciences B (mathematics, physics, and others which do not fall under Mathematical and physical sciences A)
	11) Chemistry
	12) Engineering
<b>Biological Sciences</b>	13) Biology
	14) Agricultural sciences A (plant production and environmental agriculture, agricultural chemistry, forest and forest products science, boundary agriculture)
	15) Agricultural sciences B (agricultural science in society and economy, agro-engineering, animal life science, applied aquatic science)
	16) Medicine, dentistry, and pharmacy A (pharmacy, basic medicine, boundary medicine, and society medicine)
	17) Medicine, dentistry, and pharmacy B (clinical medicine, dentistry, nursing, and others which do not fall under Medicine, dentistry, and pharmacy A)

**5) In case of an application for “Scientific Research” (screening division “Generative Research Field”)**

When applying, please make sure to **select one area** you wish to have screened from the three areas in Attached Table 4. Moreover, the period of the invitation for applications for each area is fixed from the fiscal year of the establishment until the third fiscal year. The research period in the first fiscal year of the set period is three to five years, in the second fiscal year of the set period, it is three to four years, and in the third fiscal year of the set period, it is three years.



## Attached Table 2 List of Categories, Areas, Disciplines and Research Fields

### (1) Grants-in-Aid for Scientific Research FY2014 List of Categories, Areas, Disciplines and Research Fields

#### Category: Integrated Disciplines

Area	Discipline	Research Field	Item Number	Remark	
Informatics	Principles of Informatics	Theory of informatics	1001		
		Mathematical informatics	1002		
		Statistical science	1003		
	Principles of Informatics	Computer system	1101		
		Software	1102		
		Information network	1103		
		Multimedia database	1104		
		High performance computing	1105		
		Information security	1106		
		Cognitive science	1201		
	Human informatics	Perceptual information processing	1202		
		Human interface and interaction	1203		
		Intelligent informatics	1204		
		Soft computing	1205		
		Intelligent robotics	1206		
		Kansei informatics	1207		
		Frontiers of informatics	Life / Health / Medical informatics	1301	
			Web informatics, Service informatics	1302	A B
	Library and information science/ Humanistic social informatics		1303	A B	
	Learning support system		1304		
	Entertainment and game informatics		1305		
	Environmental science		Environmental analyses and evaluation	Environmental dynamic analysis	1401
		Risk sciences of radiation and chemicals		1402	A B
		Environmental impact assessment		1403	
		Environmental conservation	Environmental engineering and reduction of environmental burden	1501	
			Modeling and technologies for environmental conservation and remediation	1502	
			Environmental conscious materials and recycle	1503	
Environmental risk control and evaluation			1504		
Sustainable and environmental system development		Environmental and ecological symbiosis	1601		
		Design and evaluation of sustainable and environmental conscious system	1602		
		Environmental policy and social systems	1603		
Complex systems		Design science	Design science	1651	
		Human life science	Home economics/Human life	1701	
			Clothing life/Dwelling life	1702	
			Eating habits	1703	A B※
		Science education/Educational technology	Science education	1801	※
	Educational technology		1802	※	
	Sociology/History of science and technology	Sociology/History of science and technology	1901		
	Cultural assets study and museology	Cultural assets study and museology	2001	A B	
	Geography	Geography	2101		
	Social/Safety system science	Social systems engineering/ Safety system	2201	A B	
		Natural disaster / Disaster prevention science	2202	A B	
		Biomedical engineering	Biomedical engineering/ Biomaterial science and engineering	2301	A B
	Medical systems		2302		
	Medical engineering assessment		2303		
	Rehabilitation science/ Welfare engineering		2304	A※ B	

Area	Discipline	Research Field	Item Number	Remark
Complex systems	Health/Sports science	Developmental mechanisms and the body works	2401	A B
		Sports science	2402	A※ B
		Applied health science	2403	A※ B
	Childhood science	Childhood science (childhood environment science)	2451	
	Biomolecular science	Biomolecular chemistry	2501	
		Chemical biology	2502	
	Brain sciences	Basic / Social brain science	2601	A B
		Brain biometrics	2602	

#### Category: Humanities and Social Sciences

Area	Discipline	Research Field	Item Number	Remark	
Humanities/ Social sciences	Area studies	Area studies	2701		
	Gender	Gender	2801		
Humanities	Tourism Studies	Tourism Studies	2851		
	Philosophy	Philosophy/Ethics	2901		
		Chinese philosophy/Indian philosophy/Buddhist studies	2902	※	
		Religious studies	2903		
		History of thought	2904		
		Aesthetics and studies on art	3001		
	Art studies	Fine art history	3002		
		Art at large	3003		
		Literature	Japanese literature	3101	※
	Literature in English		3102	※	
	European literature		3103	※	
	Chinese literature		3104		
	Linguistics	Literature in general	3105		
		Linguistics	3201	※	
	History	Japanese linguistics	3202		
		English linguistics	3203		
		Japanese language education	3204		
		Foreign language education	3205	※	
	Human geography	Historical studies in general	3301		
		Japanese history	3302	※	
		History of Asia and Africa	3303		
		History of Europe and America	3304		
		Archaeology	3305		
	Cultural anthropology	Cultural anthropology	3501		
	Social sciences	law	Fundamental law	3601	
			Public law	3602	
			International law	3603	
Social law			3604		
Criminal law			3605		
Civil law			3606		
New fields of law			3607		
Politics		Politics	3701		
		International relations	3702		
Economics		Economic theory	3801		
		Economic doctrine/ Economic thought	3802		
		Economic statistics	3803		
		Economic policy	3804		
		Public finance/Public economy	3805		
		Money/ Finance	3806		
Management		Economic history	3807		
		Management	3901	※	
		Commerce	3902		
Sociology		Accounting	3903		
		Sociology	4001	※	
	Social welfare and social work studies	4002			

The first stage of the screening of the research fields that have the indication “A” or “B” in the remarks column is carried out in separate groups. The basis for this division in separate groups is the keywords that need to be selected within each research category. Make sure to select A or B based on the Attached Table “List of Categories, Areas, Disciplines and Research Fields”, when applying for these research fields.

The first stage of the screening of the research fields that have the symbol “※” is carried out in separate groups. The basis for this division in separate groups is the keywords that need to be selected within “Scientific Research (C)”. Make sure to select a division number from 1 to 5 based on the Attached Table “List of Categories, Areas, Disciplines and Research Fields”, when applying for these research fields. For research fields that include A※ or B※, choose either A or B and division number 1 or 2.

In the case of “Scientific Research (C)”, 15 research fields carried in the “List of Disciplines and Research Fields with a Time Limit” have been set up as areas for screening, besides the main table.

## (Humanities and Social Sciences)

Area	Discipline	Research Field	Item Number	Remark
Social sciences	Psychology	Social psychology	4101	
		Educational psychology	4102	
		Clinical psychology	4103	
		Experimental psychology	4104	
	Education	Education	4201	※
		Sociology of education	4202	
		Education on school subjects and activities	4203	※
		Special needs education	4204	

## Category: Science and Engineering

Interdisciplinary science and engineering	Nano/Micro science	Nanostructural chemistry	4301		
		Nanostructural physics	4302		
		Nanomaterials chemistry	4303		
		Nanomaterials engineering	4304		
		Nanobioscience	4305		
		Nano/Microsystems	4306		
	Applied physics	Applied materials	4401		
		Crystal engineering	4402		
		Thin film/Surface and interfacial physical properties	4403		
		Optical engineering, Photon science	4404		
		Plasma electronics	4405		
	Quantum beam science	General applied physics	4406		
		Quantum beam science	4501		
	Computational science	Computational science	4601		
Mathematical and physical sciences	Mathematics	Algebra	4701	※	
		Geometry	4702	※	
		Basic analysis	4703	※	
		Mathematical analysis	4704		
		Foundations of mathematics/Applied mathematics	4705	※	
	Astronomy	Astronomy	4801		
	Physics	Particle/Nuclear/Cosmic ray/Astro physics	4901	※	
		Condensed matter physics I	4902		
		Condensed matter physics II	4903	※	
		Mathematical physics/ Fundamental condensed matter physics	4904		
		Atomic/Molecular/Quantum electronics	4905		
		Biological physics/Chemical physics/Soft matter physics	4906		
		Earth and planetary science	Solid earth and planetary physics	5001	
			Meteorology/Physical oceanography/Hydrology	5002	
	Space and upper atmospheric physics		5003		
	Geology		5004		
	Stratigraphy/Paleontology		5005		
	Petrology/Mineralogy/ Economic geology		5006		
	Geochemistry/Cosmochemistry		5007		
	Plasma science	Plasma science	5101		
	Chemistry	Basic chemistry	Physical chemistry	5201	
			Organic chemistry	5202	
			Inorganic chemistry	5203	
		Applied chemistry	Functional solid state chemistry	5301	
			Synthetic chemistry	5302	
			Polymer chemistry	5303	
			Analytical chemistry	5304	
			Bio-related chemistry	5305	
			Green/Environmental chemistry	5306	
			Energy-related chemistry	5307	
Materials chemistry		Organic and hybrid materials	5401		
		Polymer/Textile materials	5402		
		Inorganic industrial materials	5403		
		Device related chemistry	5404		
Engineering	Mechanical engineering	Materials/ Mechanics of materials	5501		
		Production engineering/ Processing studies	5502		

Area	Discipline	Research Field	Item Number	Remark	
Engineering	Mechanical engineering	Design engineering/ Machine functional elements/ Tribology	5503		
		Fluid engineering	5504		
		Thermal engineering	5505		
		Dynamics/Control	5506		
		Intelligent mechanics/ Mechanical systems	5507		
		Electrical and electronic engineering	Power engineering/Power conversion/Electric machinery	5601	
			Electronic materials/ Electric materials	5602	
	Electron device/ Electronic equipment		5603		
	Communication/ Network engineering		5604		
	Measurement engineering		5605		
	Control engineering/System engineering		5606		
	Civil engineering	Civil engineering materials/ Construction/ Construction management	5701		
		Structural engineering/ Earthquake engineering/ Maintenance management engineering	5702		
		Geotechnical engineering	5703		
		Hydraulic engineering	5704		
		Civil engineering project/ Traffic engineering	5705		
		Civil and environmental engineering	5706		
	Architecture and building engineering	Building structures/Materials	5801		
		Architectural environment/ Equipment	5802		
		Town planning/ Architectural planning	5803		
		Architectural history/Design	5804		
	Material engineering	Physical properties of metals/Metal-base materials	5901		
		Inorganic materials/Physical properties	5902		
		Composite materials/Surface and interface engineering	5903		
		Structural/Functional materials	5904		
		Material processing/Microstructural control engineering	5905		
		Metal making/Resource production engineering	5906		
	Process/Chemical engineering	Properties in chemical engineering process/Transfer operation/Unit operation	6001		
		Reaction engineering/Process system	6002		
		Catalyst/Resource chemical process	6003		
Biofunction/Bioprocess		6004			
Integrated engineering	Aerospace engineering	6101			
	Naval and maritime engineering	6102			
	Earth system and resources engineering	6103			
	Nuclear fusion studies	6104			
	Nuclear engineering	6105			
Energy engineering	6106				

**Category: Biological Sciences**

Area	Discipline	Research Field	Item Number	Remark	Area	Discipline	Research Field	Item Number	Remark
Biological Sciences	Neuroscience	Neurophysiology / General neuroscience	6201		Medicine, dentistry, and pharmacy	Basic medicine	General anatomy (including histology/embryology)	7901	※
		Nerve anatomy/Neuropathology	6202	A			General physiology	7902	
		Neurochemistry/Neuropharmacology	6203	B			Environmental physiology (including physical medicine and nutritional physiology)	7903	
	Laboratory animal science	Laboratory animal science	6301				General pharmacology	7904	
	Oncology	Tumor biology	6401	A			General medical chemistry	7905	
		Tumor diagnostics	6402	B			Pathological medical chemistry	7906	
		Tumor therapeutics	6403				Human genetics	7907	
	Genome science	Genome biology	6501				Human pathology	7908	※
		Medical genome science	6502				Experimental pathology	7909	※
		System genome science	6503				Parasitology (including sanitary zoology)	7910	
Conservation of biological resources	Conservation of biological resources	6601		Bacteriology (including mycology)	7911				
Biology	Biological Science	Molecular biology	6701		Virology	7912			
		Structural biochemistry	6702		Immunology	7913			
		Functional biochemistry	6703		Medical sociology	8001			
		Biophysics	6704		Applied pharmacology	8002			
		Cell biology	6705		Laboratory medicine	8003	※		
		Developmental biology	6706		Medical Physics and Radiological Technology	8005			
	Basic biology	Plant molecular biology/Plant physiology	6801		Pain science	8004			
		Morphology/Structure	6802		Epidemiology and preventive medicine	8101	※		
		Animal physiology/Animal behavior	6803		Hygiene and public health	8102	※		
		Genetics/Chromosome dynamics	6804		Medical and hospital management	8103			
Evolutionary biology		6805		Legal medicine	8104				
Biodiversity/Systematics		6806		General internal medicine (including psychosomatic medicine)	8201				
Ecology/Environment		6807		Gastroenterology	8202	※			
Anthropology	Physical anthropology	6901		Cardiovascular medicine	8203	※			
	Applied anthropology	6902		Respiratory organ internal medicine	8204	※			
Agricultural sciences	Plant production and environmental agriculture	Science in genetics and breeding	7001		Kidney internal medicine	8205	※		
		Crop production science	7002		Neurology	8206	※		
		Horticultural science	7003		Metabolomics	8207	※		
		Plant protection science	7004	A	Endocrinology	8208			
	Agricultural chemistry	Plant nutrition/Soil science	7101		Hematology	8209	※		
		Applied microbiology	7102		Collagenous pathology/Allergology	8210	※		
		Applied biochemistry	7103		Infectious disease medicine	8211			
		Bioorganic chemistry	7104		Pediatrics	8212	※		
		Food science	7105	※	Embryonic/Neonatal medicine	8213			
	Forest and forest products science	Forest science	7201		Dermatology	8214	※		
Wood science		7202		Psychiatric science	8215	※			
Agricultural sciences	Applied aquatic science	Aquatic bioproduction science	7301	A	Radiation science	8216	※		
		Aquatic life science	7302	B	General surgery	8301	※		
	Agricultural science in management and economy	Agricultural science in management and economy	7401		Digestive surgery	8302	※		
		Agricultural science in rural society and development	7402		Cardiovascular surgery	8303	※		
	Agro-engineering	Rural environmental engineering/Planning	7501		Respiratory surgery	8304	※		
		Agricultural environmental engineering/Agricultural information engineering	7502	A	Neurosurgery	8305	※		
	Animal life science	Animal production science	Animal production science	7601	B	Orthopaedic surgery	8306	※	
			Veterinary medical science	7602	A	Anesthesiology	8307	※	
			Integrative animal science	7603	B	Urology	8308	※	
	Boundary agriculture	Insect science	Insect science	7701	A	Obstetrics and gynecology	8309	※	
Environmental agriculture(including landscape science)			7702	B	Otorhinolaryngology	8310	※		
Applied molecular and cellular biology			7703		Ophthalmology	8311	※		
Medicine, dentistry, and pharmacy	Pharmacy	Chemical pharmacy	7801		Pediatric surgery	8312			
		Physical pharmacy	7802		Plastic surgery	8313			
		Biological pharmacy	7803		Emergency medicine	8314			
		Pharmacology in pharmacy	7804		Morphological basic dentistry	8401			
		Natural medicines	7805		Functional basic dentistry	8402			
		Drug development chemistry	7806		Pathobiological dentistry/ Dental radiology	8403			
		Environmental and hygienic pharmacy	7807		Conservative dentistry	8404			
		Medical pharmacy	7808	※	Prosthodontics/ Dental materials science and Dental engineering/ Regenerative dentistry	8405	※		
Medicine, dentistry, and pharmacy	Dentistry	Chemical pharmacy	7801		Surgical dentistry	8406			
		Physical pharmacy	7802		Orthodontics/Pediatric dentistry	8408	※		
		Biological pharmacy	7803		Periodontology	8409			
		Pharmacology in pharmacy	7804		Social dentistry	8410	※		
		Natural medicines	7805		Fundamental nursing	8501	※		
		Drug development chemistry	7806		Clinical nursing	8502	※		
		Environmental and hygienic pharmacy	7807		Lifelong developmental nursing	8503	※		
		Medical pharmacy	7808	※	Gerontological nursing	8504	※		
		Medicine, dentistry, and pharmacy	Nursing	Chemical pharmacy	7801		Community health nursing	8505	※
				Physical pharmacy	7802				
Biological pharmacy	7803								
Pharmacology in pharmacy	7804								
Natural medicines	7805								
Drug development chemistry	7806								
Environmental and hygienic pharmacy	7807								
Medical pharmacy	7808			※					
Medicine, dentistry, and pharmacy	Nursing			Chemical pharmacy	7801				
				Physical pharmacy	7802				
		Biological pharmacy	7803						
		Pharmacology in pharmacy	7804						
		Natural medicines	7805						
		Drug development chemistry	7806						
		Environmental and hygienic pharmacy	7807						
		Medical pharmacy	7808	※					
		Medicine, dentistry, and pharmacy	Nursing	Chemical pharmacy	7801				
				Physical pharmacy	7802				
Biological pharmacy	7803								
Pharmacology in pharmacy	7804								
Natural medicines	7805								
Drug development chemistry	7806								
Environmental and hygienic pharmacy	7807								
Medical pharmacy	7808			※					

(2) Grants-in-Aid for Scientific Research FY2014 List of Categories, Areas, Disciplines and Research Fields

○ List of Disciplines and Research Fields with a Time Limit

Area	Detail	Item Number	Set Period
Integrated Nutrition Science	<p>Nutrition science has contributed greatly to health promotion and improvement of physical strength/shape through the understandings of physiology, nutrients, and metabolism necessary for growth and maintenance of life. However, new issues such as overeating, food satiation, lifestyle-related diseases, stress, and aging, have been emerged. Recent advances in life science and analytical informatics technology enabled new approaches in this field: molecules, cells, laboratory animals to human population can now be included for research design. In order for such expansion in nutrition science to accelerate, establishment of a cross-sectoral research community beyond the existing frame, including eating habits studies, applied health science, food science, and clinical medicine is required.</p> <p>The goal of this new research field is to contribute toward maintaining/promoting health, preventing diseases, and potentiating therapeutic effects in the complex and diverse modern society. A broad range of studies with aim to build the platform of nutritional science and put the accomplishment into practice is encouraged.</p> <p>Nutrition science has contributed greatly to health promotion and improvement of physical strength/shape through the understandings of physiology, nutrients, and metabolism necessary for growth and maintenance of life. However, new issues such as overeating, food satiation, lifestyle-related diseases, stress, and aging, have been emerged. Recent advances in life science and analytical informatics technology enabled new approaches in this field: molecules, cells, laboratory animals to human population can now be included for research design. In order for such expansion in nutrition science to accelerate, establishment of a cross-sectoral research community beyond the existing frame, including eating habits studies, applied health science, food science, and clinical medicine is required.</p> <p>The goal of this new research field is to contribute toward maintaining/promoting health, preventing diseases, and potentiating therapeutic effects in the complex and diverse modern society. A broad range of studies with aim to build the platform of nutritional science and put the accomplishment into practice is encouraged.</p>	9047	FY2011 — FY2014
Regenerative medicine	<p>Human beings are composed of many organs and various types of cells within. These cells must self-renew themselves even after birth as well as during development, to maintain the homeostasis of the organ and to maintain their life against various environmental stresses. Regenerative medicine intends to repair and regenerate the damaged tissue/organ by manually controlling the self-renewing system, which resides endogenously in the organisms. Three-step approach, which includes in vitro, in vivo, and translational researches, is required for clinical application of the regenerative medicine. Identification of the cell-type specific differentiation factor and the establishment of the cell-type specific protocol for effective differentiation and purification system using somatic stem cells, embryonic stem (ES) cells, and induced pluripotent stem (iPS) cells are the important goals of in vitro researches. Thereafter, in vivo approaches using laboratory animals is important to establish the method to deliver the cells and to keep them alive and functional at the damaged lesion, in order to re-organize the damaged organ within the living organisms. To reach the final goal toward the clinical application, in vitro and in vivo findings should be gathered and translated into clinical medicine. Immunologic problem, such as rejection, or the differences in the organ size between experimental animals and humans are the challenges that should be solved in translational researches. Development of tissue engineering technology is one of the helpful candidates for solving those problems. Regenerative medicine is expected to become a new hope for the patients of refractory disorders such as heart diseases and neurodegenerative diseases. Moreover, regenerative medicine could reduce the inflated healthcare cost, which is becoming a big economic issue in the advanced country, by improving the quality of life of the elderly in the graying society. We are eager for the challenging proposals that would greatly advance this field.</p>	9048	

Area	Detail	Item Number	Set Period
Care Studies	<p>The twenty-first century is expected to be a “century of care”, faced with such problems as an aging society coupled with a declining birthrate, ethical issues in medical treatment and nursing, mental difficulties suffered by people of all ages, and other issues. The English word “care” has been translated into various Japanese words which refer to nursing, care-giving, care-taking, treatment, consideration, concern, etc., and these Japanese words had been used and discussed separately in diverse fields such like medical treatment, nursing, care-giving, welfare, psychology, education, ethics, philosophy, etc. Recently, however, the original word “care” came to be used in a broader sense, out of the necessity, for cross-field discussions, so as to avoid limiting the problems to a particular field by using a specific Japanese term.</p> <p>From the 1980s on, research on “cross-field” care emerged, and this trend rapidly developed after the enforcement of the Nursing Care Insurance in 2000. It is hoped that care studies will be established as an independent area of study through multi-disciplinary participation by researchers of various scholarly fields, which include not only clinical investigation and on-the-spot investigation, but also fundamental theoretical research based on investigation of the literature and international academic exchange. JSPS is expecting research that will contribute significantly to the development of this field.</p>	9049	
Cultural Research	<p>This category includes broad research areas in the humanities and social sciences with special reference to language and culture. These are interdisciplinary research fields such as research in culture, cultural studies, cultural history, comparative culture (comparative literature), cross-cultural understanding/international understanding, international exchange, history of cultural interexchange, nationalism, post-colonialism, identity, migration and so forth.</p> <p>This category does not exclude fields where sociological, economical and legal knowledge methodology and interest is involved, and encourages a broadened approach with the possibility of interdisciplinary research.</p> <p>For example, within research on nationalism, it may be necessary to include considerations of research on culture, sociology, politics and law, among others, but in addition to consideration of research results from other fields, this kind of research should increase the possibilities of interdisciplinary research while it absorbs the various results and outcomes of cultural research to contribute to the positive development of the field.</p>	9050	FY2012 — FY2014
Land, Housing and Real Estate Study	<p>In our modern society of aging and decrease of birthrate, the research on the land, housing and real estate is extending to cover the vitalization in city center, community development, vitalization in urban and regional area, property market, real estate finance, valuation of real estate, bad debt problem, real estate securitization.</p> <p>The land, housing and real estate, whose values are occupying large portion of our gross national wealth, need to be appropriately evaluated and efficiently used by households, firms, and public organizations for improving our quality of life.</p> <p>This subject expects the inter-disciplinary study of economics, urban planning/social engineering, law, social welfare, sociology, psychology, political science, architecture, and housing e.t.c.</p>	9051	
Measurement Science and Technology in Omics	<p>As a newly emerging area of study in natural sciences, "Measurement Science and Technology in Omics" deals with measurement principles and techniques in omics sciences, which include proteomics, metabolomics (biological and natural objects, cells and etc.), metabonomics (pharmacology), glycomics, lipidomics, metallomics, adductomics, genomics, transcriptomics and combined omics (e.g., glycoproteomics). The suffix -ome as used in molecular biology refers to a totality of some sort, and the related suffix -omics is used to address the objects of study of such fields. Hence, "Measurement Science and Technology in Omics" is based on identification and analyses of molecules in a wide range of scientific fields. Each omics has its own molecular characteristics and requires intrinsic measurement techniques. For example, sugar chains are different from chains of lipids and those of peptides/protein. Measurement techniques in this area include non-destructive measurement, visualization/imaging analyses, on-site measurement, spectroscopy, mass spectrometry, ion measurement, and laser measurement, including information processing of measured data. Mass spectrometry research in this area covers qualitative and quantitative analyses, structural analyses, functional analyses, molecule-based analyses, and their application research. We are looking forward to receiving many good proposals which will greatly contribute to this area of research.</p>	9052	

Area	Detail	Item Number	Set Period
Space life science	<p>Space life science is a research field rich in originality and covering a wide range of sciences such as astrobiology which uses space environment for studies on the origin of life, gravity- and radiation-biology which aim to clarify adaptation and survival mechanisms of microbes, plants and animals, and human, by bringing them to the space environment definitely different from the earth, and engineering, medical and agricultural sciences necessary for experiment performance and human expeditions in the space. It is anticipated that experiments accomplished in the space environment will elucidate the fundamental mechanisms by which diverse organisms arose, adapted and evolved on the earth. Besides, space life science is the only current discipline that can deal the issues related to promotion of space development and utilization, environmental preservation from extraterrestrial view points, education for next generations of space ages. We are eager for the challenging proposals that would greatly contribute to the advancement of this field.</p>	9053	FY2012 — FY2014
Sleep Science	<p>Sleep science comprises multidisciplinary research fields ranging from basic biology (physiology, pharmacology, molecular biology, psychology and behavioral science), clinical medicine (psychiatry, neurology, respiratory medicine, otolaryngology, oral surgery, dentistry), sociology, cultural science to engineering. Sleep science has become an important research subject and has been gaining more and more attention worldwide from scientific interests as well as from social needs, partly because big traffic accidents occurred due to sleep disorders.</p> <p>We expect many highly motivated research proposals from various fields including basic research (sleep, circadian rhythms, or biological clock), clinical research (the pathophysiology and/or treatment of sleep abnormalities, parasomnia, or sleep disorders), sociology, engineering and cultural science.</p>	9054	FY2012 — FY2014
Natural Disaster Issues and Humanities/Social Sciences	<p>Large natural disasters, such as the Great East Japan Earthquake, cause immense human loss and material damage, posing various risks to Japanese society. To overcome these risks, research centered on civil engineering and construction is, of course, needed to get a grasp of the damage that can be caused to the physical environment and infrastructure and to devise measures for their restoration and reconstruction. Of concomitant importance is a need to advance systematic research on socio-economic damage and measures for its recovery and reconstruction as well. Required for this purpose are a diversified research approach with cross-disciplinarity, sustained research support, capability to respond to a wide expanse of affected areas and damage regionally, and an enhanced knowledge base for supporting restoration and mitigating damage in the future. To this end, thematic research on “earthquake disaster issues” will need to be advanced across a spectrum of humanities and social sciences fields.</p> <p>In this area, research will need to be undertaken in fields that do not fit neatly within existing research field categories. As research will need to be advanced from new perspective, an opportunity is accorded to systematically establish a new domain oriented to disaster issues within the humanities and social sciences. A strong demand to do this opens up opportunities for research that transcends topic setting within existing fields and enables research advancement and knowledge sharing across fields of the humanities and social sciences in ways that make it possible to gain a full-scope, cross-disciplinary grasp of earthquake damage and restoration.</p>	9055	FY2013 — FY2015



Area	Detail	Item Number	Set Period
Reconstruction Agriculture	<p>The Great East Japan Earthquake left as teachings that the subdivided conventional agriculture research was not able to respond quickly and comprehensively to social needs on restoration and revival from an unexpected catastrophic natural disaster. We are anxious about not only catastrophic natural disasters, such as an earthquake, a volcanic eruption, and local severe rain but also the environmental degradation in the forest, arable-land, coastal region and sea areas used as the base of the agriculture, forestry and fisheries by a global weather change and community development. Furthermore we are anxious also about the infection damage caused by foot and mouth disease, BSE, avian flu, etc. In order to make environmental preservation and population support for human beings to develop, it is clearly important to maintain the continuous activity of agriculture, forestry and fishery. Therefore, it is necessary to restore and reproduce the agriculture, forestry and fishery environments where they were damaged and deteriorated and to develop production system based on the interaction between land area and hydrosphere. Furthermore, it is required to develop the consistent production technology in the limited resources and various unstable environments. An environmental indicator living thing also needs to be used for evaluation of environmental perturbation efficient. Moreover, it also becomes important approach to search for and use the various functions of the animals, plants and microbes in the ecosystem of the area. In the field of reconstruction agriculture, the proposals of the research task which can serve as an element to contribute for the sustainable development of agriculture, forestry and fisheries are expected from an interdisciplinary viewpoint. Furthermore, revival, reproduction, and development of agriculture, forestry and fisheries can be expected to execute an application subject in the future.</p> <p>The field of reconstruction agriculture includes following research subjects as example. Construction of the sustainable agricultural system based on an understanding of the correlation of an ecosystem (a forest, a valley, farmland, coast, and ocean), Monitoring and impact evaluation of an environmental pollutant in the land area and hydrosphere (an understanding and kinetic analysis of movement, accumulation and metabolism / action mechanism of a pollutant in agricultural and marine products), Development of the simple assay method, concentration and removal technique of pollutant (the technology of environmental restoration and purge, the bio/phyto-remediation using microbes and plants, etc.), Screening of a genetic resource which has stress tolerance, Breeding of crops with salt and/or acid resistance, Effective use of waste to the biomass fuel, Protection and regulation against the invasion of the foreign pathogens that injure men, livestock and crops, Construction of the food system and food circulation which guarantees relief and safety, such as construction of an emergency perishable-foods feed system, Maintenance of the infrastructure in the area of agriculture and fisheries, Community formation of a city associated with the primary industry, A scene design, and The risk communication at the time of a disaster, etc.</p>	9056	FY2013 — FY2015
Public Policy	<p>Public policy research entails economic policy, urban planning and disaster-response policy on both the central and regional levels. A wide definition also includes policy, strategy, implementation and assessment stratum. Many of the research papers published in the reports, journals and bulletins of the Public Policy Studies Association JAPAN over the past 15 years can be attributed to the fields of law, political science and economics. What can also be seen in them is the emergence of a new research field called policy economics, created through collaboration and linkage among existing disciplines. One typical example of such merger is a field born out of collaboration between law and economics. Political economics became main stream for at least some period of time in the worldwide political science domain. Public economics advanced around the field of economics (by James M. Buchanan and others) has become a required component of high-level political-science education. In public policy literature, its formation process is the object of political-science analysis. Regarding policy concepts, results of public policy has been produced in various research areas, including, economics, welfare, the environment and urban planning. In actuating these results, only when various policies, laws, ordinance and rules are established on the central and local government levels, they give it generality. Furthermore, when the validity of public policy comes into question, judicial precedents in the courts are analyzed. A trend can be seen in an expansion of the social sciences under the name of public policy, which merges existing disciplines with disciplines in a variety of other research domains. Collaboration and linkage among the fields of social sciences can elevate the standard of research in each of them, and potentially lead to the creation of new research fields. The key words in the public policy domain include law and economics, political economics, policy assessment, urban planning, welfare policy, environmental policy, governance, NGO/NPO, public economics, public choice, national debt/budget deficits, financing/bubble, strategic theory, and international public policy. Advancing research in them is expected to contribute significantly to the development of this field.</p>	9057	

(Note 1)

This table, in combination with the main table, applies only to “Scientific Research (C)”, screening division “General”.

(Note 2)

The set period is the fiscal year when the call for proposals is organized. Notwithstanding the set period, research projects of 3 to 5 years are being sought.

# Attached Table 3 Appendix Table of Keywords “Categories, Areas, Disciplines and Research Fields”

1) The first stage of the screening of the research fields followed by A or B in each category of the division column is carried out in two separate groups. The basis for this division in two groups is the keywords shown in all the research categories (except for “Overseas Academic Research”). Make sure to select A or B based on the keyword, when applying for the research fields in the list.

2) The first stage of the screening of the research fields followed by the numbers 1 to 5 in each category of the division column is carried out in separate groups. The basis for this division in separate groups is the keywords shown in “Scientific Research (C)”. Make sure to select a number from 1 to 5 based on the keyword, when applying for the research fields in the list for “Scientific Research (C)”. For research fields that include ※A or ※B, choose either A or B and division number 1 or 2.

<b>Category: Integrated Disciplines</b>
---

**Area: Informatics**

**Discipline: Principles of Informatics**

Item Number	Research Field	Screening Sub-panel Number / Keyword
1001	Theory of informatics	1 Theory of computation
		2 Automata theory / Formal language theory
		3 Mathematical theory of programs
		4 Computational complexity theory
		5 Algorithm theory
		6 Cryptosystem
		7 Discrete structure
		8 Computational learning theory
		9 Theory of quantum computation
		10 Mathematical logic
		11 Information theory
		12 Coding theory
1002	Mathematical informatics	1 Optimization theory
		2 Mathematical finance
		3 Mathematical system theory
		4 System control theory
		5 System analysis
		6 System methodology
		7 System modeling
		8 System simulation
		9 Combinatorial optimization
		10 Queueing theory
1003	Statistical science	1 Research survey and experimental design
		2 Multivariate analysis
		3 Time series analysis
		4 Statistical pattern recognition
		5 Statistical inference
		6 Computational statistics and computer aided statistics
		7 Statistical prediction and control
		8 Model selection
		9 Pharmaceutical / genome statistical analysis
		10 Behaviormetrics
		11 Spatial / environmental statistics
		12 Statistics education
		13 Statistical quality control
		14 Statistical learning theory
		15 Social research and analysis plan
		16 Data science
		17 Hypothesis testing

**(Discipline: Principles of Informatics)**

Item Number	Research Field	Screening Sub-panel Number / Keyword
1102	Software	1 Programming language
		2 Programming methodology
		3 Programming language processor
		4 Parallel distributed computing
		5 Operating system
		6 High-dependable system
		7 Virtualization technology
		8 Software security
		9 Cloud computing infrastructure
		10 Software engineering
		11 Specification and verification
		12 Development environment
		13 Development management
1103	Information network	1 Network architecture
		2 Network protocol
		3 Internet
		4 Mobile network
		5 Overlay network
		6 Sensor network
		7 Traffic engineering
		8 Network design, operation, management and analysis technology
		9 Ubiquitous computing
		10 Service provision infrastructure
		11 Information home appliances
1104	Multimedia database	1 Data model
		2 Relational database
		3 Database system
		4 Multimedia information acquisition
		5 Multimedia information processing
		6 Multimedia information representation
		7 Multimedia information generation
		8 Information retrieval
		9 Structured document
		10 Content distribution and management
		11 Geographic information system
		12 Metadata
		13 Big data analysis and utilization
1105	High performance computing	1 Parallel processing
		2 Distributed processing
		3 Grid and Cloud computing
		4 Numerical analysis
		5 Visualization
		6 Computer graphics
		7 High performance computing application

**Discipline: Principles of Informatics**

Item Number	Research Field	Screening Sub-panel Number / Keyword
1101	Computer system	1 Computer architecture
		2 Circuit and system
		3 LSI design technology
		4 Reconfigurable system
		5 High-dependable architecture
		6 Low power technology
		7 hardware / software co-design
		8 Embedded system



## (Discipline: Principles of Informatics)

Item Number	Research Field	Screening Sub-panel Number / Keyword
1106	Information security	1 Access control
		2 Personal identification
		3 Cryptography
		4 Authentication
		5 Security evaluation / audit
		6 Malware countermeasures
		7 Network security
		8 Unauthorized access countermeasure
		9 Software protection
		10 Privacy protection
		11 Information filtering
		12 Digital forensics
		13 Biometrics
		14 Tamper resistance technology

## (Discipline: Human informatics)

Item Number	Research Field	Screening Sub-panel Number / Keyword
1205	Soft computing	1 Neural network
		2 Genetic algorithm
		3 Fuzzy theory
		4 Chaos
		5 Fractal
		6 Complex systems
		7 Probabilistic information processing
1206	Intelligent robotics	1 Intelligent robot
		2 Behavior and environment recognition
		3 Motion planning
		4 Sensory behavior system
		5 Autonomous system
		6 Digital human model
		7 Real world information processing
		8 Physical agents
		9 Intelligent roomAnimation
1207	Kansei informatics	1 Kansei design
		2 Kansei expression
		3 Kansei recognition
		4 Kansei cognitive science, Kansei psychology
		5 Kansei robotics
		6 Kansei measurement evaluation
		7 Ambiguity and kansei
		8 Kansei information processing
		9 Kansei database
		10 Kansei interface
		11 Kansei physiology
		12 Kansei material products
		13 Sensitivity industry
		14 Kansei environmental science
		15 Kansei sociology
		16 Kansei philosophy
		17 Kansei pedagogy
		18 Kansei brain science
		19 Kansei management

## Discipline: Human informatics

Item Number	Research Field	Screening Sub-panel Number / Keyword
1201	Cognitive science	1 Evolution, development, learning
		2 Cognition, memory, education
		3 Thought, inference, problem solving
		4 Sensation, perception, kansei
		5 Emotion / Feeling / Behavior
		6 Cognitive psychology
		7 Comparative cognitive psychology
		8 Cognitive philosophy
		9 Brain cognitive science
		10 Cognitive linguistics
		11 Comparative decision making theory
		12 Cognitive engineering
		13 Cognitive archaeology
		14 Cognitive model
		15 Sociability
		16 Law and psychology
		17 Safety and human factor
1202	Perceptual information processing	1 Pattern recognition
		2 Image processing
		3 Computer vision
		4 Computational photography
		5 Human measurement
		6 Intelligent image editing
		7 Visual media processing
		8 Image database
		9 Speech processing
		10 Acoustic information processing
		11 Speech / Sound database
		12 Information sensing
		13 Sensor fusion
		14 Sensing devices / systems
		15 Tangible sensing
1203	Human interface and interaction	1 Human interface
		2 Multi-modal interface
		3 Human-computer interaction
		4 CSCW
		5 Groupware
		6 Virtual reality
		7 Augmented Reality
		8 Mixed reality
		9 Realistic communication
		10 Wearable device
		11 Usability
		12 Ergonomics
1204	Intelligent informatics	1 Search, logic, inference algorithms
		2 Machine learning
		3 Knowledge acquisition
		4 Knowledge-based system
		5 Intelligent system architecture
		6 Intelligent information processing
		7 Natural language processing
		8 Knowledge discovery and data mining
		9 Ontology
		10 Human-agent interaction
		11 Multi-agent system

Discipline: Frontiers of informatics

(Discipline: Frontiers of informatics)

Item Number	Research Field	Screening Sub-panel Number / Keyword	Item Number	Research Field	Screening Sub-panel Number / Keyword		
1301	Life / Health / Medical informatics	1 Bioinformatics	1303	Library and information science/ Humanistic social informatics	A [Library and information science]		
		2 Genome information processing			1 Library science		
		3 Proteome information processing			2 Information services		
		4 Computer simulation			3 Library information systems		
		5 Life informatics			4 Digital archives		
		6 Biological information			5 Information organization		
		7 Neuroinformatics			6 Information retrieval		
		8 Neural information processing			7 Information media		
		9 Artificial life system			8 Bibliometrics and scientometrics		
		10 Molecular computing			9 Construction and management of information resources		
		11 DNA computing			B [Humanistic social informatics]		
		12 Medical information			10 Information ethics		
		13 Diagnostic imaging			11 Media environment		
		14 Remote diagnosis and treatment			12 Literature information		
		15 Sanitation information			13 Historical information		
		16 Health information			14 Information sociology		
		17 Medical image			15 Law information		
		18 Intracellular logistics analysis			16 Information economics		
1302	Web informatics, Service informatics	A [Web informatics]	1304	Learning support system	1 Media Literacy		
		1 Web system			2 Learning media		
		2 Web computing			3 Social media		
		3 Social web			4 Learning content development support		
		4 Semantic web			5 Learning management system		
		5 Recommendation system			6 Intelligent Learning support system		
		6 Web service			7 Remote learning		
		7 Web mining			8 Distributed collaborative learning support system		
		8 Web intelligence			9 Project-based learning support system		
		9 Social network analysis			10 e-Learning		
		10 Network community			11 Use and evaluation		
		B [Service informatics]			1305	Entertainment and game informatics	1 Music information processing
		11 Service engineering					2 Performance support
		12 Service management					3 3D content and animation
		13 Quality of Service					4 Game programming
		14 Queue					5 Network entertainment
		15 Business model					6 Media art
		16 Service-oriented architecture					7 Interactive art
		17 Knowledge management					8 Digital archives
		18 Educational services					9 Digital museum / Virtual museum
		19 Medical welfare service					10 Information culture
		20 Intelligent transport systems					
		21 Financial service					
		22 Social and environmental service					
23 Smart grid							
24 Management of technology							

**Area: Environmental science**

**Discipline: Environmental analyses and evaluation**

Item Number	Research Field	Screening Sub-panel Number / Keyword
1401	Environmental dynamic analysis	1 Environmental change
		2 Biogeochemical cycle
		3 Environmental measurements
		4 Environmental model
		5 Environmental information
		6 Global warming
		7 Global change of water cycle
		8 Environmental monitoring of the polar regions
		9 Chemical oceanography
		10 Biological oceanography
		11 Remote sensing
1402	Risk sciences of radiation and chemicals	1 Environmental radiation
		2 Protection
		3 Basic process
		4 Dosimetry and assessment
		5 Damage
		6 Response
		7 Repair
		8 Sensitivity
		9 Impact on life
		10 Risk assessment
		11 Radiation management and control
		12 Toxicology
		13 Toxic substance to human
		14 Estimation of trace chemicals pollution
		15 Endocrine disrupting substances
1403	Environmental impact assessment	1 Terrestrial, aquatic, and atmospheric impact assessment
		2 Impact assessment on ecosystem
		3 Impact assessment methods
		4 Impact assessment on human health
		5 Environmental impact assessment on the future generation
		6 Human activities in polar regions
		7 Environmental monitoring
		8 Model simulation
		9 Environmental impact assessment

**Discipline: Environmental conservation**

Item Number	Research Field	Screening Sub-panel Number / Keyword
1501	Environmental engineering and reduction of environmental burden	1 Reduction of wastewater, exhaust gas and solid wastes
		2 Appropriate treatment and disposal
		3 Closed process and integrated pollution control
		4 Pollutants separation and removal technologies
		5 Control of noise, vibration and ground subsidence
		6 Environmental analysis
		7 Simplified analysis and monitoring
1502	Modeling and technologies for environmental conservation and remediation	1 Environmental impact analysis
		2 Environmental pollution survey and evaluation
		3 Pollutants removal and remediation technologies
		4 Monitoring and modeling of pollutants behavior in environment
		5 Biological treatment and remediation
		6 Impact on environment and ecosystem
		7 Surface water, ground water and soil

**(Discipline: Environmental conservation)**

Item Number	Research Field	Screening Sub-panel Number / Keyword
1503	Environmental conscious materials and recycle	1 Design and production of recycle materials
		2 Reduction, reuse, recycle (3R)
		3 Recovery of valuables
		4 Separation and purification
		5 Appropriate treatment and disposal
		6 Recycling and life cycle assessment(LCA)
		7 Environmental conscious design
		8 Green productions
		9 Zero-emission
		10 Chemistry for material recycle
1504	Environmental risk control and evaluation	1 Identification and analytical evaluation of pollutants
		2 Monitoring
		3 Transport, diffusion and accumulation of pollutants
		4 Environmental criteria and standards
		5 Life environment and health items
		6 Emission quality standards
		7 Evaluation of cross-border pollution
		8 Chemicals management
		9 Exposure scenario
		10 Risk evaluation
		11 Precautionary principle
		12 Biodegradation and bioaccumulation
		13 Genetic and ecological toxicities
		14 Risk communication

**Discipline: Sustainable and environmental system development**

Item Number	Research Field	Screening Sub-panel Number / Keyword
1601	Environmental and ecological symbiosis	1 Biodiversity
		2 Ecosystem functions and services
		3 Ecological risks
		4 Ecosystem impact analysis
		5 Ecosystem management and conservation
		6 Remote sensing
		7 Landscape and ecosystem
		8 Rehabilitation of environment ecosystem
		9 Mitigation
		10 Ecological engineering
1602	Design and evaluation of sustainable and environmental conscious system	1 Sound material recycle system
		2 Low carbon society
		3 Renewable energy
		4 Biomass utilization
		5 Design and planning of environmental conscious areas
		6 Water resources and water use system
		7 Industrial symbiosis
		8 Material and energy flow analysis
		9 Life cycle assessment (LCA)
		10 Integrated pollution prevention and control

(Discipline: Sustainable and environmental system development)

Item Number	Research Field	Screening Sub-panel Number / Keyword
1603	Environmental policy and social systems	1 Environmental philosophy and ethics
		2 Environmental justice
		3 Environmental economics
		4 Environmental laws
		5 Environmental information
		6 Environmental geographical information
		7 Environmental education
		8 Environmental management
		9 Environment and social activities
		10 Environmental standard and auditing
		11 Consensus forming
		12 Environmental safety and security
		13 Corporate social responsibility
		14 Social and economical system
		15 Public system and management
		16 Sustainable development

Area: Complex systems

Discipline: Design science

Item Number	Research Field	Screening Sub-panel Number / Keyword
1651	Design science	1 Information design(Communication, media, contents, interaction, interface)
		2 Environmental design (Architecture, Urban, Landscape)
		3 Industrial design (Product design, universal design)
		4 Art
		5 Aesthetics
		6 Design history
		7 Theory for design
		8 Design standard
		9 Design support
		10 3D modeling & acoustic modeling
		11 Analysis & evaluation for design
		12 Design education

Discipline: Human life science

Item Number	Research Field	Screening Sub-panel Number / Keyword
1701	Home economics/ Human life	1 Family resource management
		2 Family finance and consumer issues
		3 Family
		4 Lifestyle
		5 Information for living
		6 Human life and culture
		7 Life of the elderly
		8 Well-being for individual and family
		9 Child care, Child rearing
		10 Home economics education
		11 Consumer education
		12 Philosophy of home economics
		13 Materials and goods for living
		14 Design for living
		15 Manufacturing , Skills of making products for daily life
1702	Clothing life/Dwelling life	1 Human life and clothing
		2 Clothing and environment
		3 Dyeing and finishing treatment
		4 Clothing design and manufacturing
		5 Clothing materials
		6 History of costume
		7 Clothing culture
		8 Clothing psychology
		9 Dwelling life
		10 Planning of housing
		11 Housing management
		12 Housing history
		13 Interior, housing and living environment design
		14 Dwelling environment and equipment
		15 Housing structure and material
		16 City planning and community policy
		17 Child-raising environment
		18 Housing for the elderly
		19 Housing environment for the elderly and people with disabilities
		20 Dwelling culture
		21 Housing information and housing education

(Discipline: Human life science)

Item Number	Research Field	Screening Sub-panel Number / Keyword
1703	Eating habits	A [Food and cooking]
		1 Cooking and processing
		2 Food storage
		3 Sensory evaluation
		4 Food materials
		5 Cooking and functional constituent
		6 Food service
		7 Food culture
		8 Texture
		9 Mastication and swallowing
		B [Diet and health]
		10 Health and dietary life
		11 Diet and nutrition
		12 Dietary education
		13 Dietary habits
		14 Dietary behavior
		15 Dietary information
		16 Food with health claims
	17 Food and environment	
18 Diet evaluation		
19 Food management		

Discipline: Science education/Educational technology

Item Number	Research Field	Screening Sub-panel Number / Keyword
1801	Science education	1 Higher education(Mathematics, Physics, Chemistry, Biology, Information science, Astronomy, Earth and planetary science, Interdisciplinary science)
		2 Elementary and secondary education(Arithmetic·Mathematics, Natural science, Information science)
		3 Engineering education
		4 Science literacy
		5 Experiment/Observation
		6 Science education curriculum
		7 Environmental education
		8 Industrial technology education
		9 Science and sociocultural aspect
		10 Science teacher training
		11 Science communication
		12 Information literacy
1802	Educational technology	1 Curriculum/Pedagogy development
		2 Teaching-learning support systems
		3 Distributed collaborative learning system
		4 Human interface
		5 Instructional materials information system
		6 Utilization of media
		7 Distance education
		8 E-learning
		9 Information-related education
		10 Media education
		11 Learning environment
		12 Teacher's education
		13 Classroom instruction

Discipline: Sociology/History of science and technology

Item Number	Research Field	Screening Sub-panel Number / Keyword
1901	Sociology/History of science and technology	1 Sociology of science
		2 History of science
		3 History of technology
		4 Medical history
		5 Industrial archaeology
		6 Philosophy of science/Theory of science
		7 Science, technology and society

Discipline: Cultural assets study and museology

Item Number	Research Field	Screening Sub-panel Number / Keyword
2001	Cultural assets study and museology	A
		1 Dating methods
		2 Material analysis
		3 Production techniques
		4 Conservation science
		5 Archaeological prospection
		6 Plant and animal residues/Human remains
		7 Cultural property/Cultural heritage
		8 Cultural resources
		9 Cultural property policy
		10 Museum Informatics
		11 Museum Education, Museum Pedagogy
		12 Museum Information Systems, Museum Informatics
		B
		13 Museum Business Management
		14 Public Finance and Administration of Museums
15 Museum Material Resources		
16 History of Museology		

Discipline: Geography

Item Number	Research Field	Screening Sub-panel Number / Keyword
2101	Geography	1 Geography in general
		2 Land use/Landscape
		3 Environmental system
		4 Regional planning
		5 Cartography/Regional geography/Geography education
		6 Geomorphology
		7 Climatology
		8 Hydrology
		9 Geographic information system
		10 Remote sensing
		11 Vegetation/Soil
		12 Tourism

Discipline: Social/Safety system science

Item Number	Research Field	Screening Sub-panel Number / Keyword
2201	Social systems engineering/Safety system	A [Social systems engineering]
		1 Social engineering
		2 Social system
		3 Policy science
		4 Development planning
		5 Management engineering
		6 Management system
		7 Operations research
		8 Quality control
		9 Industrial engineering
		10 Modeling
		11 Logistics
		12 Marketing
		13 Finance
		14 Project management
		15 Environmental management
		B [Safety system]
		16 Safety engineering
		17 Safety concerning products, facilities, systems
		18 Safety risk management
		19 Crisis management
		20 Fire and explosion prevention and protection
		21 Safety information
		22 Social technology for security (evacuation, mass guidance, information distribution, hazard map)
		23 Risk-based engineering
		24 Engineering diagnosis, regeneration, maintenance management
25 Reliability of machinery and human		
26 Occupational safety and health		

(Discipline: Social/Safety system science)

Item Number	Research Field	Screening Sub-panel Number / Keyword
2202	Natural disaster / Disaster prevention science	A [Earthquake and volcano disaster mitigation]
		1 Seismic motion
		2 Liquefaction
		3 Active fault
		4 Tsunami
		5 Volcanic eruption
		6 Volcanic ejecta/Debris flow
		7 Seismic hazard
		8 Volcanic hazard
		9 Damage prediction/Analysis/Mitigation measures
		10 Disaster mitigation and buildings
		B [Natural disasters]
		11 Meteorological disasters
		12 Hydrological disasters
		13 Geo-hazard
		14 Landslide
		15 Drought
		16 Snow and ice disasters
		17 Natural disaster prediction/Analysis/Measures
		18 Lifeline disaster prevention
		19 Local disaster preparedness plan and policy
20 Rehabilitation and reconstruction engineering		
21 Disaster risk assessment		

(Discipline: Biomedical engineering)

Item Number	Research Field	Screening Sub-panel Number / Keyword
2304	Rehabilitation science/ Welfare engineering	A [Rehabilitation science]
		1 Rehabilitation medicine
		2 Disability science
		3 Physical therapy
		1 4 Occupational therapy science
		5 Speech language and hearing therapy
		6 Social welfare and health science
		7 Artificial sensory organs
		2 8 Gerontology
		9 Clinical psychotherapy
		B [Welfare engineering]
		10 Engineering for health and welfare
		11 Technology for activities of daily living
		12 Preventive care/Assistive technology
		13 Normalization
		14 Barrier-free system
		15 Universal design
		16 Robotics for welfare and nursing care
		17 Technology for substituting biological function
		18 Technical aid
		19 Human interface
		20 Nursing engineering

**Discipline: Biomedical engineering**

Item Number	Research Field	Screening Sub-panel Number / Keyword
2301	Biomedical engineering/ Biomaterial science and engineering	A [Biomedical engineering]
		1 Medical imaging, Bioimaging
		2 Biological modeling, physiome
		3 Biological simulation
		4 Bioinformation and instrumentation
		5 Artificial Organs
		6 Engineering for regenerative medicine
		7 Biological properties
		8 Biomedical control and therapy
		9 Biomechanics
		10 Cell biomechanics
		11 Nano-Bio Systems
		12 Biomedical Ultrasound
		13 Physiologically active substances application
		14 Bio-inspired system
		B [Biomaterial science and engineering]
		15 Biomaterials
		16 Biofunctional materials
		17 Cell and Tissue engineering Materials
		18 Biocompatible materials/Biosuitable materials
		19 Nano-biomaterials
		20 Materials for regenerative medicine and engineering
		21 Drug delivery system
22 Stimuli-responsive materials		
23 Materials for genetic and nucleic acid engineering		
2302	Medical systems	1 Medical Ultrasound System
		2 Medical imaging system
		3 Laboratory examination system
		4 Minimally invasive treatment system
		5 Remote diagnosis and treatment system
		6 Organ preservation and treatment system
		7 Medical information system
		8 Computational surgery
		9 Medical robotics
2303	Medical engineering assessment	1 Regulatory Science
		2 Safety validation
		3 Clinical studies
		4 Biomedical engineering ethics
		5 Medical devices

**Discipline: Health/Sports science**

Item Number	Research Field	Screening Sub-panel Number / Keyword
2401	Developmental mechanisms and the body works	A [Developmental mechanisms and the body works]
		1 Educational physiology
		2 Physical systems science
		3 Biological information analysis
		4 Higher brain function science
		5 Physical growth developmental science
		6 Sensory and motor development studies
		B [Mental and physical education and culture]
		7 Aesthetic education
		8 Physical environment theory
		9 Kinetic theory of leadership
		10 Pedagogy of physical education
		11 Fitness
		12 Cultural theories of physical movement
		13 Philosophy of the body
		14 Life and death education
		15 Psychology of physical education
		16 Affective science
		17 Outdoor education
		18 Dance education
		19 Gender education
		20 Adult life stage elderly gymnastics
21 Martial arts theory		
22 Motion adaptation life science		
2402	Sports science	A [Sports science]
		1 Sports philosophy
		2 Sports history
		3 Sports psychology
		1 4 Sports science management
		5 Sports pedagogy
		6 Training science
		7 Sports biomechanics
		8 Coaching
		9 Sports talent
		2 10 Sports for the disabled
		11 Sports sociology
		12 Sports environment
		13 Cultural anthropology of sport
		B [Medical and sport sciences]
		14 Sports physiology
		15 Sports biochemistry
		16 Sports nutrition
		17 Energy metabolism
		18 Training medical science
19 Sports disorders		
20 Doping		

## (Discipline: Health/Sports science)

Item Number	Research Field	Screening Sub-panel Number / Keyword
2403	Applied health science	A [Health education/Health promotion activities]
		1 Health education
		2 Health promotion
		3 Safety propulsion/Safety education
		4 Pedagogy of health education
		5 Stress management
		6 Smoking/Drug abuse prevention education
		7 School health
		8 AIDS and sex education
		9 Health management
		10 Health information
		11 Nutritional guidance
		12 Physical and mental health
		13 Leisure/Recreation
		B [Applied medical health]
		14 Lifestyle diseases
		15 Exercise prescription and exercise therapy
		16 Aging
17 Sports medicine		
18 Sports immunology		

**Discipline: Childhood science**

Item Number	Research Field	Screening Sub-panel Number / Keyword
2451	Childhood science (childhood environment science)	1 Health/Growth
		2 Development/Child care
		3 Exercise/Play
		4 Human rights/Right
		5 Misconduct/Deviation
		6 Social environment
		7 Cultural environment
		8 Physical environment
		9 Educational environment

**Discipline: Biomolecular science**

Item Number	Research Field	Screening Sub-panel Number / Keyword
2501	Biomolecular chemistry	1 Natural product chemistry
		2 Secondary metabolite
		3 Searching bioactive molecules
		4 Chemical modification of biomolecules
		5 Biological function related substance
		6 Molecular mechanism of activity expression
		7 Biosynthesis
		8 Design and synthesis of bioactive molecule
		9 Combinatorial chemistry
		10 Chemical ecology
		11 Metabolome
2502	Chemical biology	1 In vivo functional expression
		2 Searching medicines
		3 Searching diagnosis chemicals
		4 Searching agricultural chemicals
		5 Chemical library
		6 Structure-activity relationship
		7 Chemical probes
		8 Molecular imaging
		9 Biomolecule measurements
		10 Intracellular chemical reactions
		11 Molecular targeting drugs
		12 Proteomics
		13 Directed evolution

**Discipline: Brain sciences**

Item Number	Research Field	Screening Sub-panel Number / Keyword
2601	Basic / Social brain science	1 Genome brain science
		2 Epigenetics
		3 Brain molecule profiling
		4 Nano brain science
		5 Chemical biology
		6 Medicinal brain science
		7 Brain function probe
		8 Brain imaging
		A 9 Luminary brain science
		10 Neuron glial cross-interaction
		11 Brain function model animals
		12 Brain function behavioral analysis
		13 Brain and rhythm
		14 Sleep
		15 Neuropsychology/Linguistic science
		16 Neurological science
		17 Science of Dementia
		18 Communication
		19 Human interaction
		20 Social behavior
		21 Development and education
		B 22 Sensibility, affectivity and emotion
		23 Values, reward and punishment
		24 Motivation
		25 Neuroeconomics and neuromarketing
		26 Political brain science
2602	Brain biometrics	1 Brain morphology measurement
		2 Functional /Non-invasive biometry (measurement)
		3 Real time brain blood flow measurement
		4 Brain recordings
		5 Brain information reading (Decoding)
		6 Sensory information
		7 Kinetic (motor) information
		8 Cognitive information
		9 Higher brain function measurement
		10 Brain information processing
		11 Brain function operation
		12 Brain machine interface



**Category: Humanities and Social Sciences**

**Area: Humanities/Social sciences**

**Discipline: Area studies**

Item Number	Research Field	Screening Sub-panel Number / Keyword
2701	Area studies	1 Europe
		2 Russia/Slavic area
		3 North America
		4 Central and South America
		5 East Asia
		6 Southeast Asia
		7 South Asia
		8 West Asia/Central Asia
		9 Africa
		10 Oceania
		11 Global studies
		12 Cross-regional comparative studies
		13 Aid/Regional cooperation

**Discipline: Gender**

Item Number	Research Field	Screening Sub-panel Number / Keyword
2801	Gender	1 Gender differences/Gender roles
		2 Sexuality
		3 Social thought/Social movements/History
		4 Law/Politics
		5 Economy/Labor
		6 Social policy/Social welfare
		7 Body/Expression/Media
		8 Science and technology/Medicine/Life Science
		9 Education/Human development
		10 Development
		11 Violence/Prostitution
		12 Cross-cultural comparison
		13 Women's studies/Men's studies/Queer studies
		14 Career
		15 Gender equality
		16 Comparative analysis among nations

**Discipline: Tourism Studies**

Item Number	Research Field	Screening Sub-panel Number / Keyword
2851	Tourism Studies	1 Tourism Theory
		2 Tourism Resources
		3 Tourism Policy
		4 Tourist Industry
		5 Regional Development
		6 Town Planning
		7 Tourists
		8 Resorts
		9 Landscape
		10 World Heritage Sites
		11 Festivals and Events

**Area: Humanities**

**Discipline: Philosophy**

Item Number	Research Field	Screening Sub-panel Number / Keyword
2901	Philosophy/ Ethics	1 Principles of philosophy/Specific theories of philosophy
		2 Principles of ethics/Specific theories of ethics
		3 Western philosophy
		4 Western ethics
		5 Japanese philosophy
		6 Japanese ethics
		7 Comparative philosophy
2902	Chinese philosophy/ Indian philosophy/ Buddhist studies	1 Chinese philosophy/Thought
		2 Chinese Buddhism
		3 Taoism
		4 Confucianism
		5 Indian philosophy/Thought
		6 Buddhist studies/History of Buddhism
2903	Religious studies	1 Religious studies in general
		2 History of religions
		3 Sociology of religion
		4 Philosophy of religion
		5 Comparative study of religion
2904	History of thought	1 History of Western thought
		2 History of Eastern and Japanese thought
		3 Comparative history of thought
		4 History of religious thought
		5 History of social thought
		6 History of political thought
		7 History of scientific thought
		8 History of art theory

**Discipline: Art studies**

Item Number	Research Field	Screening Sub-panel Number / Keyword
3001	Aesthetics and studies on art	1 Aesthetics
		2 Philosophy and theory of art
		3 Musicology and music history
		4 Miscellaneous art studies
3002	Fine art history	1 Japanese and Eastern art history
		2 Western art history
		3 Comparative art history
		4 Iconology and religious art history
		5 Architecture history
		6 History of design, product design and clothing
3003	Art at large	1 Cultural representation studies
		2 Pop culture
		3 Film studies
		4 Performing arts
		5 Policy, arts management and creative industries
		6 Art practice, and musical and other performance
		7 Media arts

**Discipline: Literature**

Item Number	Research Field	Screening Sub-panel Number / Keyword
3101	Japanese literature	1 Japanese literature in general
		2 Ancient literature (Nara and Heian periods)
		3 Medieval literature (Kamakura and Muromachi periods)
		4 Kanbungaku (Chinese literature in Japan)
		5 Bibliography and philology
		6 Premodern literature (Edo period)
		7 Modern and contemporary literature (after Meiji Restoration)
		8 Literary theory, criticism, and comparative literature



## (Discipline: Literature)

Item Number	Research Field	Screening Sub-panel Number / Keyword
3102	Literature in English	1 English literature
		2 Comparative literature
		3 American literature
		4 Other literatures in English
		5 Literary theory, criticism, bibliography and philology
3103	European literature	1 French and Francophone literature
		2 Western classics
		3 Literary theory, criticism, bibliography and philology
		4 Comparative literature
		5 German literature
		2 6 Russian and East European literature
		7 Other European literature
3104	Chinese literature	1 Chinese literature
		2 Bibliography and philology
		3 Literary theory and criticism
		4 Comparative literature
3105	Literature in general	1 Literary theory and criticism
		2 Comparative literature
		3 Literature in other languages and areas

## Discipline: Linguistics

Item Number	Research Field	Screening Sub-panel Number / Keyword
3201	Linguistics	1 Phonetics
		2 Phonology
		3 Morphology
		4 Syntax
		1 5 Semantics
		6 Pragmatics
		7 Discourse analysis
		8 Scripts and orthography
		9 Lexicography
		10 Sociolinguistics
		11 Psycholinguistics
		12 Biolinguistics
		13 Historical linguistics
		14 French linguistics
		2 15 German linguistics
		16 Chinese linguistics
		17 Other languages
		18 Endangered and minority languages
		19 Neurolinguistics
		20 Corpus linguistics
3202	Japanese linguistics	1 Phonetics/Phonology
		2 Grammar
		3 Morphology, Semantics
		4 Writing systems
		5 Stylistics
		6 Dialect
		7 Language in daily life
		8 History of the Japanese language
		9 History of Japanese linguistics
3203	English linguistics	1 Phonetics/Phonology
		2 Grammar
		3 Morphology, Semantics
		4 Stylistics
		5 History of the English language
		6 History of English linguistics
		7 Diversity of the English language

## (Discipline: Linguistics)

Item Number	Research Field	Screening Sub-panel Number / Keyword
3204	Japanese language education	1 Systems of Japanese language education/ Language policy
		2 Theories on qualified teachers/Classroom research
		3 Teaching methods/Curriculum planning
		4 Theory of second language acquisition
		5 Educational technology/Teaching materials/Educational media in general
		6 Mother tongue retention/Bilingual education
		7 Cross-cultural understanding and intercultural communication
		8 Japanese affairs
		9 History of Japanese language education
		10 Educational testing and evaluation
3205	Foreign language education	1 1 Teaching methods/Curriculum planning
		2 Educational technology/Teaching materials/Educational media in general
		3 e-Learning/Computer-assisted language learning
		4 Theory of second language acquisition
		5 Intercultural communication, translation and interpretation
		6 Early foreign language education
		7 Foreign language education and language policies
		4 8 Theory and history of foreign language education
		9 Educational testing and evaluation
		10 Training foreign language teachers

## Discipline: History

Item Number	Research Field	Screening Sub-panel Number / Keyword
3301	Historical studies in general	1 World history
		2 History of cultural and diplomatic exchange
		3 Comparative history
		4 Comparative study of civilizations
		5 Globalization
		6 Environmental history
		7 History of islands and oceans
		8 Research in historical materials
3302	Japanese history	1 Ancient history (Nara and Heian periods)
		2 Medieval history (Kamakura and Muromachi periods)
		3 Cultural history
		1 4 Religious history
		5 Rural history
		6 Japanese history in general
		7 History of cultural and diplomatic exchange
		8 Research in historical materials
		9 Early modern history (Edo period)
		10 Modern and contemporary history (after the Meiji Restoration)
		2 11 Local history
		12 Environmental history
		13 History of disasters
		14 Urban history

(Discipline: History)

Item Number	Research Field	Screening Sub-panel Number / Keyword
3303	History of Asia and Africa	1 Chinese history (Ancient, medieval, and early modern periods)
		2 Chinese history (Modern and contemporary periods)
		3 East Asian history
		4 Southeast Asian history
		5 Oceanian history
		6 South Asian history
		7 West Asian/Islamic history
		8 Central Eurasian history
		9 African history
		10 Comparative history/History of cultural and diplomatic exchange
		11 Research in historical materials
3304	History of Europe and America	1 Ancient European history
		2 Medieval European history
		3 Modern and contemporary West European history
		4 Modern and contemporary East European history
		5 Modern and contemporary South European history
		6 Modern and contemporary North European history
		7 North and South American history
		8 Comparative history/History of cultural and diplomatic exchange
		9 Research in historical materials
3305	Archaeology	1 Archaeology in general
		2 Prehistoric studies
		3 Historical archaeology
		4 Japanese archaeology
		5 Asian archaeology
		6 Study of ancient civilizations
		7 Study of material culture
		8 Experimental archaeology
		9 Research in buried cultural assets
		10 Archaeological informatics

Discipline: Cultural anthropology

Item Number	Research Field	Screening Sub-panel Number / Keyword
3501	Cultural anthropology	1 Cultural anthropology
		2 Folklore
		3 Ethnography
		4 Social anthropology
		5 Comparative folklore
		6 Material culture
		7 Prehistoric period/Historic period
		8 Arts/Performing arts
		9 Religion/Rituals
		10 Development/Aid
		11 Health care
		12 Migration/Border crossing
		13 Minority
		14 Ecology/Natural environment
		15 Media
		16 Body/ Sport

Discipline: Human geography

Item Number	Research Field	Screening Sub-panel Number / Keyword
3401	Human geography	1 History of geography/Methodology
		2 Economic geography/Transportation geography
		3 Political geography/Social geography
		4 Cultural geography
		5 Urban geography
		6 Rural geography
		7 Historical geography
		8 Regional environment/Natural hazards
		9 Geography education
		10 Regional planning/Regional policy
		11 Regional geography
		12 Geographic information system
		13 History of cartography

**Area: Social sciences**

**Discipline: law**

Item Number	Research Field	Screening Sub-panel Number / Keyword
3601	Fundamental law	1 Legal philosophy/Legal theory
		2 Roman law
		3 Legal history
		4 Sociology of law
		5 Comparative law
		6 Foreign law
		7 Law and policy, Legislative studies
		8 Law and economics
3602	Public law	1 Constitutional law
		2 Administrative law
		3 Tax law
		4 Constitutional theory, History of constitution
		5 Constitutional litigation
		6 Comparative constitutional law, EU law
		7 Administrative organization law
		8 Administrative procedure
		9 Administrative remedies
		10 International tax law
3603	International law	1 Public international law
		2 Private international law
		3 International human rights, Nationality law
		4 Law of international organizations
		5 International economic law
		6 International civil procedure
		7 International trade law
3604	Social law	1 Labor law
		2 Economic law
		3 Social security law
		4 Education law
3605	Criminal law	1 Criminal law
		2 Criminal procedure
		3 Criminology
		4 Criminal justice policy
		5 Juvenile law
		6 Law and psychology
3606	Civil law	1 Civil law
		2 Commercial law
		3 Civil procedure
		4 Company law, Business corporate law
		5 Financial law
		6 Securities law
		7 Insurance law
		8 Insolvency law
		9 Alternative dispute resolution
		10 Civil execution law
3607	New fields of law	1 Environmental law
		2 Medical law
		3 Information law, Media law
		4 Intellectual property law
		5 Law and gender
		6 Law and education, Legal profession, Legal teaching
		7 Legal person, Trusts
		8 Consumer law
		9 Traffic law
		10 Land law, Housing law
		11 Judicial system

**Discipline: Politics**

Item Number	Research Field	Screening Sub-panel Number / Keyword
3701	Politics	1 Political theory
		2 Political methodology
		3 History of Western political thought
		4 History of Japanese and East Asian political thought
		5 Political history
		6 Japanese political history
		7 Japanese politics
		8 Political process
		9 Electoral studies
		10 New institutionalism
		11 Political economy
		12 Public administration
		13 Local government
		14 Comparative politics
		15 Public policy
3702	International relations	1 Theory of international relations
		2 Diplomatic history/International history
		3 Foreign policy
		4 International security
		5 Non-traditional security/ Human security
		6 International political economy
		7 International regime
		8 International integration
		9 International cooperation
		10 International communication
		11 Transnational relations
		12 Global issues
		13 International relations of East Asia
		14 International development cooperation

**Discipline: Economics**

Item Number	Research Field	Screening Sub-panel Number / Keyword
3801	Economic theory	1 Microeconomics
		2 Macroeconomics
		3 Economic theory
		4 Game theory
		5 Behavioral Economics
		6 Experimental Economics
		7 Evolutionary Economics
		8 Economic Institutions and Systems
3802	Economic doctrine/ Economic thought	1 Economic doctrine
		2 Economic thought
		3 Social thought
		4 Economic Philosophy
3803	Economic statistics	1 Statistical system
		2 Statistical research
		3 Population statistics
		4 Income/Wealth distribution
		5 National accounts
		6 Econometrics
		7 Financial Econometrics
3804	Economic policy	1 International economics
		2 Industrial organization
		3 Economic development
		4 Economic policy
		5 Urban economics
		6 Transportation economics
		7 Regional economics
		8 Environmental economics
		9 Resource economics
		10 Japanese economy
		11 Economic affairs

(Discipline: Economics)

Item Number	Research Field	Screening Sub-panel Number / Keyword
3805	Public finance/ Public economy	1 Public finance
		2 Local government finance
		3 Public economics
		4 Public policy
		5 Health economics
		6 Labor economics
		7 Social security
		8 Education economics
		9 Law and economics
		10 Political economics
3806	Money/ Finance	1 Monetary economics
		2 Finance
		3 International finance
		4 Corporate finance
		5 Insurance
		6 Financial engineering
3807	Economic history	1 Economic history
		2 Business history
		3 Industrial history

**Discipline: Management**

Item Number	Research Field	Screening Sub-panel Number / Keyword
3901	Management	1 Organizational management
		2 Managerial finance
		3 Management information
		4 Business administration
		5 Corporate social responsibility
		6 Management theory
		7 Corporate strategy
		8 International management
		9 Management of technology
		10 Business ventures
		11 Human resource management
3902	Commerce	1 Marketing
		2 Consumer behavior
		3 Advertising
		4 Distribution and logistics
		5 Marketing research
		6 Commerce
		7 Insurance
3903	Accounting	1 Financial accounting
		2 Managerial accounting
		3 Auditing
		4 Bookkeeping
		5 International accounting
		6 Tax accounting
		7 Governmental accounting
		8 Environmental accounting

**Discipline: Sociology**

Item Number	Research Field	Screening Sub-panel Number / Keyword
4001	Sociology	1 Social philosophy/Social thought
		2 History of sociology
		3 Sociological Theory / Sociological Methodology
		4 Social System
		5 Social research
		6 Mathematical sociology
		7 Social interaction/Social relations
		8 Social group/Social organization
		9 Institutions/Structure/Social change
		10 Knowledge/Science/Technology
		11 Politics/Power/State
		12 Class/Social status group /Social mobility
		13 Family/Kinship/Population
		14 Community/Village/City
		15 Industry/Labor
		16 Sociology of welfare
		17 Culture/Religion/Social consciousness
		18 Communication/Information/Media
		19 Gender
		20 Education/School
		21 Medical sociology /Disability studies
		22 Social problems/Social movements
		23 Discrimination/Social exclusion
		24 Environment/Pollution
		25 International community/Ethnicity
		26 Body/Sports
		27 Self/Identity
4002	Social welfare and social work studies	1 Principles of social welfare/philosophy of social welfare
		2 Social welfare history
		3 Social security / Social welfare policy
		4 Welfare state/ Welfare society
		5 Social work
		6 Poverty/ Public assistance
		7 Child welfare
		8 Women's welfare/ Feminist social work
		9 Social policy and social work with people with disabilities
		10 Social policy and social work with the elderly
		11 Social work with families
		12 Community work/ community services/community development
		13 Social work in mental health /social work in health care/ care work
		14 Forensic social work/ social work in juvenile delinquency and criminal justice
		15 Management in social work / Advocacy/evaluation
		16 International social work / NGOs in social welfare
		17 Volunteerism / NPOs in social welfare
		18 Social work education/ Field education

**Discipline: Psychology**

Item Number	Research Field	Screening Sub-panel Number / Keyword
4101	Social psychology	1 Self-processes
		2 Social cognition/Emotion
		3 Attitude/Belief
		4 Social interaction/Interpersonal relations
		5 Interpersonal communication
		6 Group/Leadership
		7 Collective behavior/Social phenomena
		8 Industry/Organization/Personnel
		9 Culture
		10 Social issues
		11 Environment/Environmental problems
		12 Media/Electronic network
		13 Consumer behavior
4102	Educational psychology	1 Development
		2 Parent-child relationship
		3 Developmental disorder
		4 Personality
		5 Teaching Method/Learning
		6 Educational assessment/evaluation
		7 Educational counseling
		8 Interpersonal relations/ behavior
		9 Self-process
		10 School,Class,Teacher
4103	Clinical psychology	1 Psychological disorder
		2 Crime/Delinquency
		3 Psychological assessment
		4 Psychotherapy
		5 Psychological intervention
		6 Nonverbal communication
		7 Counseling
		8 Psychological interviewing process
		9 Case study
		10 Self-help group
		11 Therapist's theory
		12 Community support
		13 Health psychology/Health development
		14 Rehabilitation psychology
4104	Experimental psychology	1 Psycho-physiology
		2 Sensation/Perception/Kansei
		3 Consciousness/Cognition/Attention
		4 Memory
		5 Affection/Emotion/Motivation
		6 Thinking/Reasoning/Language
		7 Learning/Behavior analysis
		8 Evolution/Development/Comparative cognition
		9 Principle/History/Methodology

**Discipline: Education**

Item Number	Research Field	Screening Sub-panel Number / Keyword
4201	Education	1 Philosophy of education
		2 Educational thought
		3 History of education
		4 Curriculum theory
		5 Instructional theory
		6 Academic achievement theory
		7 Educational methods
		8 Educational evaluation
		9 Teacher education
		10 Administration and finance of education
		11 School management
		12 School education
		13 Early childhood education/Child-care
		14 Lifelong learning
		15 Adult and community education
		16 Education at home
		17 Education policy

**(Discipline: Education)**

Item Number	Research Field	Screening Sub-panel Number / Keyword
4202	Sociology of education	1 Sociology of education
		2 Economics of education
		3 Anthropology of education
		4 Education policy
		5 Comparative education
		6 Human resource development/Development education
		7 School system/School culture
		8 Teacher/Student culture
		9 Youth problems
		10 Academic achievement problem
		11 Multicultural education
		12 Gender and education
		13 Education survey method
		14 Educational information system
4203	Education on school subjects and activities	1 Education of individual subjects (Japanese, mathematics, science, social studies, geography/History, civics, life environmental studies, music, art, home economics, technology, English, information)
		2 Education of vocational/Professional subject (industry, bussiness, agriculture, fishery, nursing, welfare)
		3 Curriculum composition/development
		4 Materials development
		5 Education excluding subject (global learning, moral, special activities)
		6 Guidance
		7 Career education
		8 Teacher training
4204	Special needs education	1 Education philosophy, Thought and History
		2 Education system, Policy, and Administration
		3 Psychological clinical study and Experiment study
		4 Assessment
		5 Instruction, Support, and Evaluation
		6 Support system and Special needs education coordinator
		7 Consultation and Counseling
		8 Family and advocacy
		9 Cohesive society and School inclusion
		10 Early detection and Early support
		11 Regular classroom and Resource room
		12 Special school for Children with disabilities
		13 Higher education and Career education
		14 Developmental disabilities and Emotional disturbance
		15 Intellectual disabilities
		16 Visual impairments, Deaf and Hard of hearing, and Speech and Language disorders
		17 Physical disorders and Health impairments
		18 Learning difficulties and School maladjustment
		19 Gifted and Talented

**Category: Science and Engineering**

**Area: Interdisciplinary science and engineering**

**Discipline: Nano/Micro science**

Item Number	Research Field	Screening Sub-panel Number / Keyword
4301	Nanostructural chemistry	1 Nanostructural chemistry
		2 Creation of nanostructures
		3 Clusters/Nanoparticles
		4 Fullerenes/Nanotubes/Graphene
		5 Mesoscopic Chemistry
		6 Hierarchical structures/Superstructures
		7 Nanosurfaces/Nanointerfaces
		8 Self-assembly
4302	Nanostructural physics	1 Nanotubes/Graphene
		2 Nanostructure properties
		3 Nanoscale control physics
		4 Nano/Micro physics
		5 Nanoprobes
		6 Quantum information
		7 Quantum effects
		8 Quantum dots
		9 Quantum devices
		10 Electron devices
		11 Spin devices
		12 Nanotribology
4303	Nanomaterials chemistry	1 Creation of nanomaterials
		2 Analysis and characterization of nanomaterials
		3 Nanosurfaces/Nanointerfaces
		4 Functional nanomaterials
		5 Formation/Control of nanostructures
		6 Molecular components
		7 Nanoparticles
		8 Fullerenes/Nanotubes/Graphene
		9 Carbon nanomaterials
		10 Single-molecule chemistry
		11 Nano-optical devices
		12 Molecular devices
4304	Nanomaterials engineering	1 Nano crystalline materials/Composites
		2 Nano particles/Wires/Sheets
		3 Nano dots/Layers
		4 Nano defect control
		5 Hetero/Homo structures
		6 Nano materials /Fabrication process
		7 Nano shaping/Forming process
		8 Nano carbon applications
		9 Nano and micro structural analysis /Evaluation/Testing
4305	Nanobioscience	1 DNA devices
		2 Nanosynthesis
		3 Molecular manipulation
		4 Biochips
		5 Single-molecule biochemistry and physiology
		6 Single-molecule bioinformation science
		7 Single-molecule science
		8 Single-molecule imaging/Nanometrology
		9 Genomic engineering
4306	Nano/Microsystems	1 MEMS •NEMS
		2 Nano/Microfabrication
		3 Nano/Micro-optical devices
		4 Nano/Microchemical systems
		5 Nano/Microbiosystems
		6 Nano/Micromechanics
		7 Nano/Microsensors

**Discipline: Applied physics**

Item Number	Research Field	Screening Sub-panel Number / Keyword
4401	Applied materials	1 Magnetic material
		2 Superconductor
		3 Dielectric
		4 Optical properties
		5 Micro crystal
		6 Organic molecule
		7 Liquid crystal
		8 New functional materials
		9 Spintronics
		10 Organic/Molecular electronics
		11 Bioelectronics
4402	Crystal engineering	1 Metal
		2 Semiconductor
		3 Amorphous
		4 Crystallite
		5 Ceramics
		6 Crystal growth
		7 Epitaxial growth
		8 Crystal characterization
		9 Heterostructure
		10 Electronic/optical functionality
4403	Thin film/ Surface and interfacial physical properties	1 Ferroelectric thin film
		2 Carbon-related thin film
		3 Oxide electronics
		4 New functional thin film materials
		5 Surface
		6 Interface
		7 Vacuum
		8 Beam application
		9 Scanning probe microscopy
		10 Electron microscopy
4404	Optical engineering, Photon science	1 Optical elements/Instrumentation/Materials
		2 Quantum information processing
		3 Vision
		4 Quantum electronics
		5 Laser
		6 Nonlinear optics
		7 Quantum optics
		8 Photonic crystals
		9 Opto-electronics
		10 Micro-and nano-optics
		11 Optical sensing
		12 Optical recording
		13 Optical controlling
		14 Photo-processing
4405	Plasma electronics	1 Plasma
		2 Plasma processing
		3 Plasma application
		4 Reactive plasma
		5 Plasma chemistry
		6 Plasma treatment
		7 Plasma diagnostics

**Area: Mathematical and physical sciences**

**(Discipline: Applied physics)**

Item Number	Research Field	Screening Sub-panel Number / Keyword
4406	General applied physics	1 Mechanics
		2 Thermal engineering
		3 Sounds
		4 Vibration
		5 Electromagnetism
		6 Physical measurements and control
		7 Standards
		8 Sensors
		9 Energy conversion
		10 Radiation
		11 Accelerators

**Discipline: Quantum beam science**

Item Number	Research Field	Screening Sub-panel Number / Keyword
4501	Quantum beam science	1 Technology of accelerator
		2 Diagnostics for quantum beams
		3 Data processing and analysis
		4 Detectors
		5 Industrial application
		6 Medical application
		7 Compact quantum beam generator
		8 Lasers
		9 X-ray
		10 $\gamma$ -ray
		11 Synchrotron radiation
		12 Neutron
		13 Muon
		14 Electron, Positron
		15 Neutrino
		16 Ion beam
		17 Proton beam
		18 Other quantum beam

**Discipline: Computational science**

Item Number	Research Field	Screening Sub-panel Number / Keyword
4601	Computational science	1 Mathematical engineering (mathematical analysis/planning/designing/optimization)
		2 Computational mechanics
		3 Numerical simulation
		4 Multi-scale modeling
		5 Large scale simulation
		6 Parallel Processing, 3D simulation
		7 Numerical simulation methods
		8 Advanced algorithms

**Discipline: Mathematics**

Item Number	Research Field	Screening Sub-panel Number / Keyword
4701	Algebra	1 Number theory
		2 Arithmetic geometry
		3 Group theory (including representation theory of groups)
		4 Algebraic combinatorics
		5 Algebraic geometry
		6 Ring theory (including Lie algebra theory, representation theory of Lie algebras)
		7 Other algebra (including algebraic analysis, computational algebra, applications of algebra)
4702	Geometry	1 Riemannian geometry (including geometric analysis)
		2 Symplectic geometry (including contact geometry)
		3 Complex geometry
		4 Other differential geometry (including geometric structures, discrete geometry)
		5 Topology (algebraic topology, general topology)
		6 Differential topology (foliations, singularities, topological transformation groups)
		7 Low-dimensional topology (knot theory, 3-dimensional manifolds, 4-dimensional manifolds)
4703	Basic analysis	1 Functional analysis (including operator theory/representation theory)
		2 Operator algebras
		3 Dynamical systems/Integrable systems
		4 Algebraic analysis
		5 Real analysis
		6 Complex analysis
		7 Probability theory
		8 Other basic analysis (including function spaces/foundations of applied analysis)
4704	Mathematical analysis	1 Functional equations
		2 Applied analysis
		3 Nonlinear analysis (including variational analysis/nonlinear phenomena)
4705	Foundations of mathematics/ Applied mathematics	1 Mathematical logic and foundations, Information mathematics
		2 Discrete mathematics
		3 Numerical analysis/ Mathematical models (including prediction Theory, optimization, data analysis)
		4 Statistical mathematics (including game theory, design of experiments, convex programming problems, decision theory, estimation theory, testing theory, estimation of stochastic processes)
		5 Other applied mathematics

**Discipline: Astronomy**

Item Number	Research Field	Screening Sub-panel Number / Keyword
4801	Astronomy	1 Optical/Infrared astronomy
		2 Radio astronomy
		3 Solar physics
		4 Astrometry
		5 Theoretical astronomy
		6 X-ray/ $\gamma$ -ray astronomy



**Discipline: Physics**

Item Number	Research Field	Screening Sub-panel Number / Keyword
4901	Particle/ Nuclear/ Cosmic ray/ Astro physics	1 Particle physics (theory)
		2 Nuclear physics (theory)
		3 Cosmic ray physics (theory)
		4 Astrophysics (theory)
		5 Cosmology/Gravitation (theory)
		6 Particle physics (experiment)
		7 Nuclear physics (experiment)
		8 Cosmic ray physics (experiment)
		9 Astrophysics (experiment)
		10 Cosmology/Gravitation (experiment)
		11 Accelerator technology
		12 Particle detectors
4902	Condensed matter physics I	1 Semiconductors
		2 Mesoscopic system/Localization
		3 Optical properties
		4 Surface/Interface
		5 Crystal growth
		6 Dielectrics
		7 Lattice defects
		8 X-ray/Particle beam
		9 Phonon properties
		10 Spin properties(semiconductor)
4903	Condensed matter physics II	1 Magnetism
		2 Magnetic resonance
		3 Strongly-correlated system
		4 High temperature superconductivity
		5 Metal
		6 Ultralow temperature/Condensed quantum system
		7 Superconductivity/Density wave system
		8 Molecular solid/Organic conductor
4904	Mathematical physics/ Fundamental condensed matter physics	1 Statistical physics
		2 Fundamental condensed matter theory
		3 Mathematical physics
		4 Integrable system
		5 Non-equilibrium/Nonlinear physics
		6 Applied mathematics
		7 Dynamics
		8 Fluid physics
		9 Disordered system
		10 Computational physics
4905	Atomic/ Molecular/ Quantum electronics	1 Atom/Molecule
		2 Quantum electronics
		3 Quantum information
		4 Radiation
		5 Beam physics
4906	Biological physics/ Chemical physics/Soft matter physics	1 Physics of living phenomena
		2 Physics of biomolecules
		3 Mathematical biology
		4 Glass•Liquid•Solution
		5 Optical response•Photosynthesis•Chemical reaction
		6 Polymer•Liquid crystal•Gel
		7 Emulsion•Membrane•Colloid
		8 Interface•Wetting•Adhesion•Fracture
		9 Biophysics(general)
		10 Chemical physics(general)
		11 Soft matter physics(general)

**Discipline: Earth and planetary science**

Item Number	Research Field	Screening Sub-panel Number / Keyword
5001	Solid earth and planetary physics	1 Earthquake phenomena
		2 Volcanic phenomena
		3 Prediction of earthquakes and volcanic eruptions
		4 Earthquake and volcanic disasters
		5 Crustal movement/Sea floor crustal movement
		6 Geomagnetism
		7 Gravity
		8 Tectonics
		9 Internal structure
		10 Earth interior dynamics/Mineral physics
		11 Solid planets/Satellite/Asteroid
		12 Planet formation and evolution
		13 Exploration of solid planets
		14 Observation methods
5002	Meteorology/ Physical oceanography/ Hydrology	1 Meteorology
		2 Climatology
		3 Planetary atmospheres
		4 Air-sea interaction
		5 Geophysical fluid dynamics
		6 Physical oceanography
		7 Global environmental system
		8 Land-area water cycle/Material circulation
		9 Water budget
5003	Space and upper atmospheric physics	1 Terrestrial and planetary magnetospheres
		2 Geomagnetic variation
		3 Terrestrial and planetary ionospheres
		4 Terrestrial and planetary upper atmospheres
		5 Aurora/Magnetic storm
		6 Solar wind/Interplanetary space
		7 Solar-terrestrial system/Space weather
		8 Space plasma/Plasma wave
		9 Planetary plasma/Planetary atmosphere exploration
5004	Geology	1 Regional geology
		2 Marine geology
		3 Accretionary prism/Orogenic belt
		4 Structural geology/Tectonics
		5 Volcanoes/Active faults/Geologic hazards
		6 Environmental geology/Hydraulic geology
		7 Quaternary study
		8 Applied geology/Urban geology
		9 Sedimentology/Energy resource geology
		10 Earth history/Planetary geology
		11 Geoinformatics
		12 History of geoscience
5005	Stratigraphy/ Paleontology	1 Stratigraphic succession
		2 Fossil
		3 Phylogeny/Evolution/Diversity
		4 Function/Morphology
		5 Paleogeology
		6 Paleobiogeography
		7 Paleoenvironment
		8 Paleo-ocean
5006	Petrology/ Mineralogy/ Economic geology	1 Earth and planetary materials
		2 Earth and planetary evolution
		3 Crust/Mantle/Core
		4 Magma/Igneous rocks
		5 Metamorphic rocks
		6 Mineral physics
		7 Natural and artificial crystals
		8 Elemental fractionation
		9 Ore deposition
		10 Mineral resources
		11 Biologic and environmental minerals



(Discipline: Earth and planetary science)

Item Number	Research Field	Screening Sub-panel Number / Keyword
5007	Geochemistry/ Cosmochemistry	1 Earth and extraterrestrial materials
		2 Material recycling
		3 Distribution of elements and molecules
		4 Isotope/Radiometric dating
		5 Cosmochemistry
		6 Chemistry of the crust and mantle
		7 Organic geochemistry
		8 Biosphere geochemistry
		9 Atmospheric and hydrospheric geochemistry
		10 Environmental/geo-environmental chemistry
		11 Analytical methods

**Discipline: Plasma science**

Item Number	Research Field	Screening Sub-panel Number / Keyword
5101	Plasma science	1 Basic plasma physics and electric discharges
		2 Space and astrophysical plasmas
		3 Burning plasma
		4 High energy density physics
		5 Complex plasmas
		6 Reactive plasmas
		7 Plasma chemistry
		8 Plasma applications
		9 Plasma diagnostics
		10 Plasma control /Laser
		11 Plasma acceleration
		12 Plasma application to beam physics
		13 Plasma application to mm and THz waves

**Area: Chemistry**

**Discipline: Basic chemistry**

Item Number	Research Field	Screening Sub-panel Number / Keyword
5201	Physical chemistry	1 Structural chemistry
		2 Electronic state
		3 Molecular dynamics
		4 Chemical reaction
		5 Reaction dynamics
		6 Molecular spectroscopy
		7 Surface/Interface
		8 Solution
		9 Cluster
		10 Theoretical chemistry
		11 Biophysical chemistry
5202	Organic chemistry	1 Structural organic chemistry
		2 Organic reaction chemistry
		3 Synthetic organic chemistry
		4 Organoelement chemistry
		5 Organic photochemistry
		6 Physical organic chemistry
		7 Theoretical organic chemistry
5203	Inorganic chemistry	1 Metal complex chemistry
		2 Organometallic chemistry
		3 Inorganic solid-state chemistry
		4 Bioinorganic chemistry
		5 Nuclear/Radiochemistry
		6 Supramolecular complexes
		7 Multinuclear/Cluster complexes
		8 Coordination polymers
		9 Solution chemistry
		10 Nanomaterials
		11 Crystal structure
		12 Catalysts
		13 Element resources

**Discipline: Applied chemistry**

Item Number	Research Field	Screening Sub-panel Number / Keyword
5301	Functional solid state chemistry	1 Optical properties
		2 Electronic properties
		3 Electron spin
		4 Integrated properties
		5 Molecular devices
		6 Supramolecules
		7 Liquid crystals
		8 Crystals
		9 Thin films
		10 Surface/Interface
		11 Colloids/Quantum dots
		12 Electrochemistry
5302	Synthetic chemistry	1 Selective synthesis
		2 Complex/Organometallic catalysis
		3 Fine chemicals
		4 Asymmetric synthesis
		5 Catalyst design/reaction
		6 Environmentally benign synthesis
		7 Reaction field
		8 Automatic synthesis
		9 Biomimetic synthesis
		10 Combinatorial synthesis
		11 Organocatalyst
		12 Natural product synthesis
		13 Synthetic resources

## (Discipline: Applied chemistry)

Item Number	Research Field	Screening Sub-panel Number / Keyword
5303	Polymer chemistry	1 Polymer synthesis
		2 Polymer reaction/degradation
		3 Asymmetric polymerization
		4 Self-assembled polymers
		5 Polymer structure
		6 Polymer properties
		7 Functional polymers
		8 Bio-related polymers
		9 Polymer complex
		10 Polymer thin film/surface
		11 Polymerization catalyst
		12 Polymer resources
5304	Analytical chemistry	1 Sampling/Pretreatment
		2 Solvent/solid-phase extraction
		3 Instrumental analysis
		4 Spectrometric analysis
		5 Laser spectroscopy
		6 Mass spectrometry
		7 X-ray/electron spectroscopy
		8 Surface/particulate analysis
		9 Electrochemical analysis
		10 Chemical/bio sensor
		11 Separation analysis
		12 Chromatography
		13 Electrophoresis
		14 Flow analysis (FIA)
		15 Microchannel analysis
		16 Analytical reagent
		17 Environmental analysis
		18 Organic/polymer analysis
		19 Bioanalysis
5305	Bio-related chemistry	1 Nucleic acid chemistry
		2 Proteins and enzymes
		3 Sugar chemistry
		4 Natural products chemistry
		5 Bio-inorganic chemistry
		6 Bio-related chemistry
		7 Molecular recognition
		8 Bio-functional chemistry
		9 Biotechnology
		10 Biocatalysts
		11 Biofunctional materials
		12 Bio-structural chemistry
5306	Green/ Environmental chemistry	1 Environmental analysis
		2 Sensor/monitoring
		3 Pollutant evaluation
		4 Pollution indicator
		5 Environment assessment
		6 Environmental information chemistry
		7 Pollutant
		8 Decontamination material
		9 Environmental road-reducing substance
		10 Biodegradable substance
		11 Environmental restoration material
		12 Green chemistry
		13 Sustainable chemistry
		14 Recycle
		15 Element recovery
		16 Safety chemistry
		17 Resource analysis

## (Discipline: Applied chemistry)

Item Number	Research Field	Screening Sub-panel Number / Keyword
5307	Energy-related chemistry	1 Energy conversion
		2 Low-carbon Chemistry
		3 High-functional catalysts
		4 Photocatalysts
		5 Molecular devices and materials
		6 Energy resources
		7 Energy conservation chemistry

**Discipline: Materials chemistry**

Item Number	Research Field	Screening Sub-panel Number / Keyword
5401	Organic and hybrid materials	1 Liquid crystals
		2 Crystals
		3 Organic semiconductor materials
		4 Organic optical materials
		5 Organic/inorganic hybrid materials
		6 Molecular device materials
		7 Other functional materials
5402	Polymer/ Textile materials	1 Properties of polymer materials
		2 Synthesis of polymer materials
		3 Textiles
		4 Rubbers
		5 Gel
		6 Functional polymer materials
		7 Biopolymers
		8 Polymer alloy
		9 Polymer composites
		10 Polymer/Textile processing
5403	Inorganic industrial materials	1 Crystals
		2 Glass
		3 Ceramics
		4 Metals
		5 Layered/Intercalation compounds
		6 Ion exchangers
		7 Ionic conductors
		8 Photocatalysts
		9 High-functional catalysts
		10 Electrochemical materials
		11 Nanoparticle/Quantum dots
		12 Porous materials
5404	Device related chemistry	1 Semiconductor devices
		2 Electrical, magnetical and optical devices
		3 Biofunctional devices
		4 Batteries
		5 Molecular sensors

**Area: Engineering**

**Discipline: Mechanical engineering**

Item Number	Research Field	Screening Sub-panel Number / Keyword
5501	Materials/ Mechanics of materials	1 Material design/Process/Mechanical properties/Evaluation
		2 Continuum mechanics
		3 Structural mechanics
		4 Damage mechanics
		5 Fracture
		6 Fatigue
		7 Environments
		8 Reliability
		9 Biomechanics
		10 Nano/Micro material mechanics
		11 Bio material mechanics
5502	Production engineering/ Processing studies	1 Modeling for production
		2 Production Systems
		3 Production management
		4 Process design
		5 Machine tools
		6 Forming process
		7 Cutting/Grinding process
		8 Special processing
		9 Ultraprecision machining
		10 Nano/Micro machining
		11 Precise positioning/Measurements
5503	Design engineering/ Machine functional elements/ Tribology	1 Design engineering
		2 Shape modeling
		3 CAD·CAM·CAE
		4 Synectics
		5 Dynamics of mechanisms
		6 Machine elements
		7 Functional components
		8 Failure diagnostics
		9 Safety design
		10 Life cycle analysis and design
		11 Recycle design
		12 Tribology
		13 Nano/Micro tribology
5504	Fluid engineering	1 Computational fluid dynamics
		2 Flow measurements
		3 Compressible/Incompressible flow
		4 Turbulent flow
		5 Multi-phase flow
		6 Reacting flow
		7 Non-Newtonian flow
		8 Micro flow
		9 Molecular fluid dynamics
		10 Bio-fluid mechanics
		11 Environmental fluid mechanics
		12 Acoustics
		13 Fluid machinery
		14 Fluid power systems
5505	Thermal engineering	1 Thermophysical property
		2 Convection
		3 Heat conduction
		4 Thermal radiation
		5 Mass transfer
		6 Combustion
		7 Nano/Micro thermal engineering
		8 Thermal engine
		9 Refrigeration/Air conditioning
		10 Heat transfer equipment
		11 Energy engineering
		12 Bio thermal engineering

(Discipline: Mechanical engineering)

Item Number	Research Field	Screening Sub-panel Number / Keyword
5506	Dynamics/ Control	1 Dynamics
		2 Dynamic design
		3 Vibration mechanics
		4 Vibration analysis/tests
		5 Control instrument
		6 Motion control
		7 Vibration control
		8 Mechanical measurements
		9 Aseismic/Seismic isolation design
		10 Vehicle and transport system control
		11 Acoustic information/Acoustical control
		12 Acoustic energy
5507	Intelligent mechanics/ Mechanical systems	1 Robotics
		2 Mechatronics
		3 Nano/Micro mechatronics
		4 Biomechanics
		5 Softmechanics
		6 Information equipment/Intelligent (smart) machine systems
		7 Precision mechanics and systems
		8 Human-machine systems
		9 Information systems

**Discipline: Electrical and electronic engineering**

Item Number	Research Field	Screening Sub-panel Number / Keyword
5601	Power engineering/ Power conversion/ Electric machinery	1 Electrical energy engineering (generation/conversion/storage, and energy conservation)
		2 Power system engineering
		3 Electric machinery
		4 Power electronics
		5 Effective utilization of electric energy
		6 Electric/Electromagnetic compatibility
		7 Illumination/Lighting
5602	Electronic materials/ Electric materials	1 Electrical and electronic materials(semiconductor, dielectric,magnetic, ferro-dielectric,organic,insulator, superconductor,etc.)
		2 Thin film/Quantum structure
		3 Thick film
		4 Fabrication/Characterization method
5603	Electron device/ Electronic equipment	1 Electron device/Integrated circuits
		2 Circuit design/Computer aided circuit design (CAD)
		3 Optical devices and circuits
		4 Quantum devices/Spintronic devices
		5 Microwave/Millimeter wave/Terahertz wave
		6 Wave technology and applications
		7 Bio devices
		8 Information storage/record
		9 Display
		10 Sensing devices
		11 Micro fabrication process technology
		12 Interconnect,packaging and system integration
5604	Communication/ Network engineering	1 Electronic circuits and systems
		2 Nonlinear theory/circuits
		3 Information theory
		4 Signal processing
		5 Communication systems (wireless, wired, satellite, optical and mobile)
		6 Modulation/Demodulation
		7 Coding/Decoding
		8 Protocol
		9 Antennas
		10 Routing/Switching
		11 Networks/Local area networks (LAN)
		12 Multimedia
		13 Cryptography/Security

(Discipline: Electrical and electronic engineering)

Item Number	Research Field	Screening Sub-panel Number / Keyword
5605	Measurement engineering	1 Measurement technology
		2 Measuring/Analyzing instruments
		3 Measurement systems
		4 Signal processing
		5 Sensing information processing
5606	Control engineering/ System engineering	1 Control theory
		2 System theory
		3 Knowledge-based control
		4 Control technology
		5 Control systems
		6 Complex systems
		7 System information (knowledge) processing
		8 Social systems engineering
		9 Management systems engineering
		10 Environmental systems engineering
		11 Production systems engineering
		12 Biosystems engineering

(Discipline: Civil engineering)

Item Number	Research Field	Screening Sub-panel Number / Keyword
5706	Civil and environmental engineering	1 Environmental planning and management
		2 Environmental systems
		3 Environmental conservation
		4 Water and wastewater systems
		5 Domestic and industrial wastes
		6 Soil and water environments
		7 Atmospheric circulation/Noise and vibration
		8 Ecological engineering

**Discipline: Civil engineering**

Item Number	Research Field	Screening Sub-panel Number / Keyword
5701	Civil engineering materials/ Construction/ Construction management	1 Concrete
		2 Steel
		3 Polymeric materials
		4 Composite material/New materials
		5 Timber
		6 Construction
		7 Pavement/Bituminous materials
		8 Maintenance/Management
		9 Construction business plan/Construction design
		10 Construction management
		11 Underground space
		12 Civil engineering informatics
5702	Structural engineering/ Earthquake engineering/ Maintenance management engineering	1 Applied mechanics
		2 Structural engineering
		3 Steel structure
		4 Concrete structure
		5 Hybrid structure
		6 Wind engineering
		7 Earthquake engineering
		8 Earthquake resistant structure
		9 Earthquake disaster prevention
		10 Maintenance engineering
5703	Geotechnical engineering	1 Soil mechanics
		2 Foundation engineering
		3 Rock engineering
		4 Engineering geology
		5 Ground behavior
		6 Ground and structure
		7 Geotechnical disaster prevention
		8 Geo-environmental engineering
		9 Tunnel engineering
5704	Hydraulic engineering	1 Hydraulics
		2 Environmental hydraulics
		3 Hydrology
		4 River engineering
		5 Water resources engineering
		6 Coastal engineering
		7 Port engineering
		8 Ocean engineering
5705	Civil engineering project/ Traffic engineering	1 Infrastructure planning
		2 Regional/Urban planning
		3 Nationwide spatial planning
		4 Disaster prevention planning/Environmental planning
		5 Transportation planning
		6 Traffic engineering
		7 Railway engineering
		8 Surveying/Remote sensing
		9 Landscape architecture/Design
		10 Infrastructure history

**Discipline: Architecture and building engineering**

Item Number	Research Field	Screening Sub-panel Number / Keyword
5801	Building structures/ Materials	1 Load theory
		2 Structural analysis
		3 Structural design
		4 Concrete structure
		5 Steel structure
		6 Timber structure
		7 Composite structure
		8 Foundation
		9 Structural material
		10 Building construction method
		11 Maintenance technology
		12 Earthquake disaster prevention
		13 Structure control
		14 Earthquake resistant design
		15 Wind resistant design
5802	Architectural environment/ Equipment	1 Sound/Vibration environment
		2 Light environment
		3 Heat environment
		4 Air environment
		5 Environmental equipment planning
		6 Environmental psychology/physiology
		7 Building equipment
		8 Fire engineering
		9 Global/Urban environment
		10 Environment designing
5803	Town planning/ Architectural planning	1 Planning theory
		2 Design theory
		3 Housing theory
		4 Building types/District facilities
		5 Urban/Regional planning
		6 Administration/System
		7 Building/Urban economy
		8 Production management
		9 Disaster prevention planning
		10 Landscape/Environmental planning
5804	Architectural history/Design	1 Architectural history
		2 Urban history
		3 Architectural theory
		4 Design
		5 Style
		6 Landscape/Environment
		7 Preservation/Renovation

**Discipline: Material engineering**

Item Number	Research Field	Screening Sub-panel Number / Keyword
5901	Physical properties of metals/Metal-base materials	1 Electronic/Magnetic properties
		2 Mechanical/Thermal/Optical properties
		3 Properties of surfaces/Interfaces/Thin films
		4 Magnetic/Electronic/Information Materials
		5 Superconductors/Semiconductors
		6 Amorphous/Metallic glasses/Quasicrystals
		7 First principles calculations/Material design simulations
		8 Atomic/Electronic structural characterization
		9 Diffusion/Phase transformation/Phase diagrams

## (Discipline: Material engineering )

Item Number	Research Field	Screening Sub-panel Number / Keyword
5902	Inorganic materials/ Physical properties	1 Crystal structure/Microstructure control
		2 Mechanical/Electronic/Electromagnetic/Optical /Thermal properties
		3 Surface/Interface control
		4 Functional ceramics
		5 Functional glasses
		6 Structural ceramics
		7 Carbon materials
		8 Dielectric materials
		9 Inorganic material synthesis and process
5903	Composite materials/ Surface and interface engineering	1 Functional composites
		2 Structural composites
		3 Hybrid/Smart/Biomaterials
		4 Surface/Interface/Grain boundary control
		5 Plasma/Laser/Surface treatment and process
		6 Durability/Environmental degradation/Monitoring/Evaluation
		7 Bonding/Adhesion/Welding
		8 Recyclable bonding/Composites
		9 Design/Fabrication process/Forming
		10 Complex polymer
5904	Structural/ Functional materials	1 Strength/Fracture toughness
		2 Reliability
		3 Energy materials
		4 Fuel cell/Electric cell materials
		5 Sensor materials/Optical functional materials
		6 Biomaterials/Medical materials/Welfare materials
		7 Multifunctional materials
		8 Infrastructure materials
		9 Functional polymeric materials
5905	Material processing/ Microstructural control engineering	1 Plastic forming/Shaping
		2 Mechanical/Thermal treatments
		3 Precision/Non-conventional process
		4 Crystal structure/Microstructure control
		5 Electrochemical process
		6 Powder process/Powder metallurgy
		7 Thin film/Plating/Wiring process
		8 Electrocatalysis
5906	Metal making/ Resource production engineering	1 Reaction/Separation/Refining
		2 Melting/Solidification
		3 Casting
		4 Crystal growth/Fabrication
		5 Various manufacturing process
		6 Ecological materials/Energy saving process
		7 Process for scarce resource substitution/Ubiquitous materials
		8 Environmental purification/Low environmental burden/Sustainable materials
		9 Recycling/Recycling process/Reuse/Transduction
		10 Resource separation/Safeguard/Securing

**Discipline: Process/Chemical engineering**

Item Number	Research Field	Screening Sub-panel Number / Keyword
6001	Properties in chemical engineering process/ Transfer operation/ Unit operation	1 Equilibrium/Transport properties
		2 Fluid/Heat transfer/Mass transfer operation
		3 Distillation
		4 Extraction
		5 Absorption
		6 Adsorption
		7 Ion exchange
		8 Membrane separation
		9 Hetero-phase separation
		10 Ultra high separation
		11 Stirring/Blending operation
		12 Granular and powdered materials operation
		13 Crystallization procedure
		14 Thin film/Microparticle forming operation
		15 Polymer processing

## (Discipline: Process/Chemical engineering)

Item Number	Research Field	Screening Sub-panel Number / Keyword
6002	Reaction engineering/ Process system	1 Gas/Liquid/Solid/Supercritical fluid operation
		2 Novel reaction field
		3 Reaction rate
		4 Reaction mechanism
		5 Reaction apparatus
		6 Materials synthesis process
		7 Polymerization process
		8 Measurement
		9 Sensors
		10 Process control
		11 Processing system design
		12 Process information processing
		13 Process operation/Facilities management
6003	Catalyst/ Resource chemical process	1 Catalysis reaction
		2 Catalyst preparation chemistry
		3 Catalyst performance analysis
		4 Energy conversion process
		5 Fossil fuel effective utilization technology
		6 Resources/Energy effective utilization technology
		7 Resources/Energy saving technology
		8 Combustion technology
6004	Biofunction/ Bioprocess	1 Biocatalyst engineering
		2 Biofunction engineering
		3 Food engineering
		4 Medicochemical engineering
		5 Bioproduction process
		6 Environmental Bioprocess
		7 Micro/Nano Bioprocess
		8 Applied bioelectrochemistry
		9 Bioreactor
		10 Biosensor
		11 Bioseparation
		12 Biorefinery
		13 Bioinformatics

**Discipline: Integrated engineering**

Item Number	Research Field	Screening Sub-panel Number / Keyword
6101	Aerospace engineering	1 Aerodynamics
		2 Structure/Material
		3 Vibration/Strength
		4 Guidance/Navigation/Control
		5 Propulsion/Engine
		6 Flight dynamics
		7 Aerospace system
		8 Design/Instrumentation
		9 Special aircraft
		10 Space utilization/Exploration
		11 Aerospace environment
6102	Naval and maritime engineering	1 Propulsion/Vessel dynamics
		2 Material/Structural mechanics
		3 Ship and marine hydrodynamics
		4 Planning/Design/Production system
		5 Shipbuilding/Equipment
		6 Maritime transportation system
		7 Marine engine/Fuel
		8 Marine environment
		9 Marine resources/Energy
		10 Ocean exploration/Equipment
		11 Undersea and subsea engineering
		12 Polar engineering
13 Maritime systems		

## (Discipline: Integrated engineering)

Item Number	Research Field	Screening Sub-panel Number / Keyword
6103	Earth system and resources engineering	1 Applied geology
		2 Geo-engineering
		3 Remote sensing
		4 Monitoring in Geo-engineering
		5 Earth systems
		6 Resource exploration
		7 Natural resource development
		8 Resource evaluation
		9 Mineral processing
		10 Underground disposal and storage
		11 Contaminated soil remediation
		12 Development and utilization of deep underground
		13 Material resources
		14 Renewable source/Energy
		15 Economic resources
6104	Nuclear fusion studies	1 Core plasma
		2 Peripheral/divertor plasma
		3 Plasma measurement
		4 Fusion theory/simulation
		5 Plasma-wall interaction
		6 Plasma facing component/Plasma heating device
		7 Fuel/Blanket
		8 Low activation material
		9 Electromagnet
		10 Inertial confinement fusion
		11 Fusion systems engineering
		12 Safety/Biological influence/Social environment
6105	Nuclear engineering	1 Radiation engineering/Beam science
		2 Reactor physics/Nuclear data
		3 Nuclear measurements/Radiation physics
		4 Thermo-Hydrodynamics
		5 Structure
		6 System design/Safety engineering
		7 Nuclear material/Nuclear fuel
		8 Isotope/Radiation chemistry
		9 Fuel cycle
		10 Backend
		11 Advanced reactors
		12 Health physics/Environmental safety
		13 Social environment of nuclear energy
6106	Energy engineering	1 Energy generation/conversion
		2 Energy transport/storage
		3 Energy saving/Efficient use of energy
		4 Energy system
		5 Environmental harmony
		6 Natural energy use



**Category: Biological Sciences**

**Area: Biological Sciences**

**Discipline: Neuroscience**

Item Number	Research Field	Screening Sub-panel Number / Keyword
6201	Neurophysiology / General neuroscience	1 Molecular and cellular neuroscience
		2 Developmental and regenerative neuroscience
		3 Neuroendocrinology
		4 Clinical neuroscience
		5 Neuroinformatics
		6 Behavioral neuroscience
		7 Computational neuroscience
		8 (Nervous) System physiology
		9 Somatic, visceral or special sensation
6202	Nerve anatomy/ Neuropathology	A [Neuroanatomy]
		1 Neural network
		2 Neurohistology
		3 Molecular neurobiology
		4 Neural fine structure
		5 Neurohistochemistry and neurocytochemistry
		6 Neural development and its abnormality
		7 Neural regeneration, remodeling and plasticity
		8 Experimental morphology of the nervous system
		9 Anatomical study of neuroimaging
		10 Neurocytology
		B [Neuropathology]
		11 Cellular neuropathology
		12 Molecular neuropathology
		13 Neurodegenerative diseases
		14 Developmental or metabolic disorders
		15 Demented disorders
		16 Cerebrovascular disorders
17 Brain tumors		
18 Spinal, peripheral nervous system or muscular disorders		
6203	Neurochemistry/ Neuropharmacology	1 Molecular and cellular neurobiology
		2 Development, differentiation, and aging
		3 Neurotransmitters and receptors
		4 Intracellular signal transduction
		5 Glial cells
		6 Pathophysiology and therapy of neuropsychiatric diseases
		7 Stem cell biology, regeneration, and repair
		8 Neural plasticity
		9 Neuropharmacology
		10 Drug development
		11 Genomic neuroscience

**Discipline: Laboratory animal science**

Item Number	Research Field	Screening Sub-panel Number / Keyword
6301	Laboratory animal science	1 Environmental facilities
		2 Infectious diseases
		3 Cryopreservation
		4 Biosafety
		5 Disease models
		6 Breeding genetics
		7 Developmental engineering
		8 Laboratory animal welfare
		9 Animal experiment technology
		10 Bioresource for research
		11 Evaluation methods

**Discipline: Oncology**

Item Number	Research Field	Screening Sub-panel Number / Keyword
6401	Tumor biology	1 Genome instability
		2 Epigenetics
		3 Cancer genome analysis
		4 Carcinogenesis
		5 Inflammation and cancer
		6 Laboratory animal models
		7 Genetically-modified animals
		8 Oncogene
		9 Tumor suppressor gene
		10 Signal transduction
		11 DNA replication
		12 Cell cycle
		13 Cancer and heredity
		14 Apoptosis
		15 Cell polarity
		16 Cell adhesion and movement
		17 Invasion and metastasis
		18 Characteristics of cancer cells
		19 Cancer microenvironment
		20 Angiogenesis
		21 Lymphangiogenesis
		22 Stem cells
		23 Cellular senescence
		24 Cellular immortalization
		25 Epidemiologic study
		26 Biobank
		27 Interaction of gene and environment
		28 Prevention and intervention study
		29 Chemoprophylaxis
		30 Interface of cancer research and society
6402	Tumor diagnostics	1 Genome analysis
		2 Proteomics analysis
		3 Expression analysis
		4 Individuality diagnosis of cancer
		5 Order-made medical treatment
		6 Drug efficacy and calculation
		7 Biomarkers
		8 Tumor markers
		9 Molecule imaging
		10 Epigenome
		11 miRNA
		12 Functional RNA
6403	Tumor therapeutics	1 Antitumor substance research and chemical biology
		2 Chemotherapy
		3 Molecular target therapy
		4 Endocrine therapy
		5 Drug delivery
		6 Physical therapy
		7 Gene therapy
		8 Nucleic acid therapy
		9 Cell therapy
		10 Humoral immunity
		11 Cell immunity
		12 Antibody therapy
		13 Immunotherapy
		14 Vaccine therapy
		15 Adoptive immunotherapy
		16 Cytokine
		17 Immunosuppression
		18 Immune activation

**Discipline: Genome science**

Item Number	Research Field	Screening Sub-panel Number / Keyword
6501	Genome biology	1 Genome structural diversity
		2 Animal genome
		3 Plant genome
		4 Microbial genome
		5 Metagenome
		6 Organelle genome
		7 Genome evolution
		8 Genome architecture
		9 Genome maintenance and repair
		10 Expression of genome function
		11 Regulation of gene expression
		12 Transcriptome
		13 Proteome
		14 Metabolome
		15 Epigenome
		16 Comparative genome
		17 Biodiversity
6502	Medical genome science	1 Disease-associated gene
		2 Personalized medicine
		3 Gene diagnosis
		4 Human genome diversity
		5 Genome medicine
		6 Regenerative medicine
		7 Genome-wide association study
		8 Human genome resequencing
		9 Genome of model animals
		10 Disease epigenomics
		11 Human population genetics
		12 Statistical genetics
		13 Medical informatics
		14 Human and animal bacterial flora
6503	System genome science	1 Gene networks
		2 Protein networks
		3 Metabolic networks
		4 Development and differentiation
		5 Synthetic biology
		6 Database biology
		7 Biological databases
		8 Modeling and simulation
		9 Bioinformatics
		10 Genome analysis technology
		11 Functional RNA
		12 Epigenomic control
		13 Genome biotechnology
		14 Genetic resources

**Discipline: Conservation of biological resources**

Item Number	Research Field	Screening Sub-panel Number / Keyword
6601	Conservation of biological resources	1 Conservation biology
		2 Biodiversity conservation
		3 Conservation of biological strains
		4 Conservation of genetic resources
		5 Ecosystem conservation
		6 Native species conservation
		7 Microbial culture collections
		8 Cell/Tissue/Seed Preservation

**Area: Biology**

**Discipline: Biological Science**

Item Number	Research Field	Screening Sub-panel Number / Keyword
6701	Molecular biology	1 Chromosomal organization,function and segregation
		2 Epigenetics
		3 Chromatin dynamics
		4 DNA replication
		5 DNA damage and repair
		6 Recombination
		7 Transcription and transcriptional regulation
		8 Post-transcriptional regulation
		9 RNA
		10 Translation
		11 Post-translational modification
		12 Super-molecular complex
6702	Structural biochemistry	1 Carbohydrate
		2 Lipid
		3 Nucleic acid
		4 Protein
		5 Enzyme
		6 Gene and chromosome
		7 Biological membrane and receptor
		8 Intercellular matrix
		9 Organelle
		10 Posttranslational modification
		11 Molecular recognition and interaction
		12 Denaturation and folding
		13 Structural analysis and prediction
		14 NMR
		15 Mass spectrometry
		16 X-ray crystallography
		17 High-resolution electron microscopy
6703	Functional biochemistry	1 Catalytic mechanism of enzyme
		2 Regulation of enzyme
		3 Gene expression and replication
		4 Biological energy transduction
		5 Metalloprotein
		6 Biological trace element
		7 Hormone and bioactive substances
		8 Cell signal transduction
		9 Membrane transport and transporters
		10 Proteolysis
		11 Cytoskeleton
		12 Immunobiochemistry
		13 Glycobiology
		14 Bioelectrochemistry
6704	Biophysics	1 Structures, dynamics and functions of proteins and nucleic acids
		2 Motility/Transport
		3 Biomembranes/Receptors/Channels
		4 Photobiology
		5 Cellular signaling and dynamics
		6 Neural information processing
		7 Theoretical biology/Bioinformatics
		8 Structural biology
		9 Folding
		10 Prediction of structure and function
		11 Single-molecule measurements and manipulation
		12 Bioimaging
		13 Non-equilibrium/Complex systems



## (Discipline: Biological Science)

Item Number	Research Field	Screening Sub-panel Number / Keyword
6705	Cell biology	1 Cell structure and function
		2 Biomembrane
		3 Cytoskeleton/Cell motility
		4 Intracellular signaling
		5 Intercellular communication
		6 Cell cycle
		7 Cytokinesis
		8 Nuclear structure and function
		9 Cell-cell interaction/Extracellular matrix
		10 Protein degradation
		11 Chromatin
		12 Organella-genesis and dynamics
6706	Developmental biology	1 Cell differentiation
		2 Stem cells
		3 Germ layer formation and gastrulation
		4 Organogenesis
		5 Fertilization
		6 Germ cells
		7 Regulation of gene expression
		8 Developmental genetics
		9 Evolution and development

**Discipline:Basic biology**

Item Number	Research Field	Screening Sub-panel Number / Keyword
6801	Plant molecular biology/Plant physiology	1 Plastid function/Photosynthesis
		2 Phytohormones/Growth and development/Totipotency
		3 Organelles/Cell wall
		4 Response to environmental factors
		5 Plant-microbe interaction/Symbiosis
		6 Metabolism
		7 Plant molecular function
6802	Morphology/ Structure	1 Animal morphology
		2 Plant morphology
		3 Microorganisms and algae morphology
		4 Comparative endocrinology
		5 Molecular morphology
		6 Morphogenesis and simulation
		7 Tissue construction
		8 Microstructure
		9 Microscopic techniques and imaging
6803	Animal physiology/ Animal behavior	1 Metabolism
		2 Neurobiology
		3 Neuroethology
		4 Behavioral physiology
		5 Animal physiology and biochemistry
6804	Genetics/ Chromosome dynamics	1 Cytogenetics
		2 Population genetics
		3 Evolutionary genetics
		4 Human genetics
		5 Genetic diversity
		6 Developmental genetics
		7 Behavioral genetics
		8 Mutagenesis
		9 Chromosome rearrangement and maintenance
		10 Model organism development
		11 Transposon
		12 QTL analysis
		13 Epigenetics

## (Discipline:Basic biology)

Item Number	Research Field	Screening Sub-panel Number / Keyword
6805	Evolutionary biology	1 Origin of life
		2 Origin of eukaryotic organisms
		3 Origin of organelles
		4 Origin of multicellularity
		5 Molecular evolution
		6 Morphological evolution
		7 Evolution of function
		8 Evolution of genes
		9 Evolutionary biology in general
		10 Comparative genomics
		11 Experimental evolutionary biology
6806	Biodiversity/ Systematics	1 Metabolism physiology
		2 Classification system
		3 Evolution
		4 Genetic diversity
		5 Population/Species diversity
		6 Community/Ecosystem diversity
		7 Taxonomic character
		8 Phylogenetics
		9 Speciation
		10 Natural history
		11 Museum
6807	Ecology/ Environment	1 Population
		2 Society
		3 Species interaction
		4 Assemblage
		5 Ecosystem
		6 Evolutionary ecology
		7 Behavioral ecology
		8 Natural environment
		9 Physiological ecology
		10 Molecular ecology
		11 Conservation ecology

**Discipline:Anthropology**

Item Number	Research Field	Screening Sub-panel Number / Keyword
6901	Physical anthropology	1 Morphology
		2 Prehistory/Chronology
		3 Biomechanism
		4 Molecular anthropology/Genetics
		5 Ecology
		6 Primates
		7 Evolution
		8 Growth/Aging
		9 Society
		10 Behavior/Cognition
		11 Reproduction/Development
		12 Bone archaeology
		13 Geographic diversity
6902	Applied anthropology	1 Physiological anthropology
		2 Ergonomics
		3 Physiological polymorphism
		4 Environmental adaptive capacity
		5 Systemic relationship
		6 Functional potential
		7 Techno-adaptability
		8 Somatometry
		9 Clothing
		10 Somatology/Adaptation
		11 Constitution/Health
		12 Forensic anthropology
		13 Medical anthropology

**Area: Agricultural sciences**

**Discipline: Plant production and environmental agriculture**

Item Number	Research Field	Screening Sub-panel Number / Keyword
7001	Science in genetics and breeding	1 Gene expression control/Epigenomics
		2 Gene regulatory network
		3 Omics analysis
		4 Transposon
		5 Organelle
		6 Growth/Developmental genetics
		7 Genome/Chromosome analysis
		8 Reproduction/Hybrid/Ploidy genetics
		9 Environmental stress
		10 Biotic stress
		11 Yield/Biomass
		12 Processing suitability/Quality improvement
		13 Genetic/Breeding resources/Biodiversity
		14 Genetic map/QTL analysis
		15 Gene introduction/mutagenesis
		16 Genome breeding/DNA marker-assisted selection
		17 Breeding theories/Bioinformatics
		18 Genetically engineered crop production/Assessment
7002	Crop production science	1 Food crops
		2 Industrial crops
		3 Forage and grassland crops
		4 Biofuel plants
		5 Resource plants
		6 Cultivation/Cropping system
		7 Farming system
		8 Crop quality/Palatability
		9 Weed science
		10 Weed control
		11 Allelochemicals
		12 Organic farming
		13 Environmentally friendly crop production
		14 Phytoremediation
		15 Management of uncultivated field
		16 Soil fertility management
		17 Stress responses
		18 Growth environment/Climatic variation
		19 Growth forecasting/Modeling
7003	Horticultural science	1 Fruit trees
		2 Vegetable crops
		3 Ornamental and landscape plants
		4 Plant production technology
		5 Transgenic and molecular biological technology
		6 Horticultural genomics and bioinformatics
		7 Pollination/Fertilization/Embryogenesis
		8 Fruit growth and ripening
		9 Plant growth failure and physiological disorders
		10 Plant growth regulators
		11 Plant pigments, aromatic compounds, and functional ingredients
		12 Environmental response and control
		13 Protected horticulture and plant factory
		14 Postharvest and processing technologies
		15 Stock and seed production, and plant propagation
		16 Plant hunting and plant genetic resources
		17 Biometrics and horticultural robotics
		18 Horticultural well-being and horticultural therapy

(Discipline: Plant production and environmental agriculture)

Item Number	Research Field	Screening Sub-panel Number / Keyword
7004	Plant protection science	1 Plant pathogens
		2 Nematode and parasitic higher plants
		3 Genome
		4 Phylogenetic systematics/Evolution
		5 Pathogenicity and virulence
		6 Resistance
		7 Disease occurrence
		8 Diagnosis of plant diseases
		9 Identification
		10 Disease control and treatment of disorder
		11 Infection • ecology • vectors
		12 Host specificity
		13 Plant pathological physiology
		14 Plant-microbe interactions
		15 Plant physiological diseases
		16 Postharvest diseases
		17 Breeding of tolerant crops
		18 RNA silencing
		19 Endophyte and mycorrhizal fungus/symbiotic bacteria
		20 Agricultural chemicals and biological control agents
		21 Drug and herbicide-resistance
		22 Disorder by agricultural chemicals
		23 Plant growth regulators and plant activators
		24 Natural bioactive substances
		25 Disease and insect pest management
		26 Mite and nematode management
		27 Weed management
		28 Introduced plants
		29 Allelopathy
		30 Integrated pest management
		31 Insect vectors
		32 Insect pest population
		33 Natural enemy
		34 Invasive insects and pathogens
		35 Insect taxonomy
		36 Occurrence forecast
		37 Management of birds and beasts
		38 Environmental stress responses / tolerance
		39 Plant growing environment
		40 Physical and cultural pest control
		41 Diseases- and insect pest-resistant crops
		42 Plant wound responses
		43 Insect-plant interactions

**Discipline: Agricultural chemistry**

Item Number	Research Field	Screening Sub-panel Number / Keyword
7101	Plant nutrition/ Soil science	1 Plant physiology, growth and development
		2 Plant nutrition and metabolism
		3 Plant metabolic regulation
		4 Plant molecular physiology
		5 Fertilizer
		6 Pedogenesis/Soil classification
		7 Soil physics
		8 Soil chemistry
		9 Soil organisms
		10 Soil environment
		11 Soil ecology
		12 Soil fertility
		13 Soil pollution control

(Discipline: Agricultural chemistry )

Item Number	Research Field	Screening Sub-panel Number / Keyword
7102	Applied microbiology	1 Microbial classification
		2 Fermentative production
		3 Microbial physiology
		4 Microbial genetics/breeding
		5 Microbial enzyme
		6 Microbial metabolism
		7 Microbial function
		8 Microbial application
		9 Environmental microorganism
		10 Secondary metabolite production
		11 Microbial ecology
		12 Control of microbe
		13 Genetic resources
		14 Gene expression
		15 Metabolic engineering
		16 Environmental and cellular responses
		17 Microbial genomics
7103	Applied biochemistry	1 Animal biochemistry
		2 Plant biochemistry
		3 Enzyme application
		4 Genetic engineering
		5 Protein engineering
		6 Structural biology
		7 Bioengineering
		8 Metabolic engineering
		9 Enzyme chemistry
		10 Glycoscience / Lipid science
		11 Cell/Tissue culture
		12 Metabolism and physiology
		13 Gene expression
		14 Production of useful material
		15 Cellular response
		16 Signal transduction
		17 Trace element
7104	Bioorganic chemistry	1 Bioactive substance
		2 Regulator of cell function
		3 Pesticide science
		4 Plant growth substance
		5 Signal molecule
		6 Biosynthesis
		7 Natural products chemistry
		8 Chemical biology
		9 Physical chemistry
		10 Analytical chemistry
		11 Synthetic organic chemistry
		12 Bioregulatory chemistry
		13 Molecular recognition
		14 Structure-activity relationship
7105	Food science	1 Food chemistry
		2 Food biochemistry
		3 Food function
		4 Nutritional chemistry
		5 Nutritional biochemistry
		6 Molecular biology of nutrition
		7 Nutrigenomics
		8 Food physics
		9 Food analysis
		10 Food engineering
		11 Food manufacturing/processing
		12 Food storage
		13 Food safety

Discipline: Forest and forest products science

Item Number	Research Field	Screening Sub-panel Number / Keyword
7201	Forest science	1 Ecology/Biodiversity
		2 Genetics/Breeding
		3 Physiology
		4 Taxonomy
		5 Environment
		6 Silviculture
		7 Pathology/Microorganism
		8 Insect/Animal
		9 Planning/Management
		10 Policy/Economics
		11 Sustainable forestry
		12 Operational system/Road/Machinery
		13 Erosion control/Slope conservation and torrent disaster prevention/Revegetation
		14 Water resource/Hydrologic cycle
		15 Material circulation/Flux
		16 Climate change/Carbon balance
		17 Biomass
		18 Landscape ecology/Landscape design/Landscape management
		19 Environmental education/Forest education
7202	Wood science	1 Wood anatomy
		2 Wood formation/Physical properties
		3 Cellulose/Hemicellulose
		4 Lignin
		5 Extractives/Bioactive component
		6 Microbiology
		7 Mashroom/Wood rotting fungi
		8 Chemical processing/Adhesion
		9 Preservation/Wood culture
		10 Wood drying
		11 Machining
		12 Wood based material
		13 Strength/Wooden construction
		14 Habitability
		15 Forest product education
		16 Woody biomass
		17 Pulp and paper

**Discipline: Applied aquatic science**

Item Number	Research Field	Screening Sub-panel Number / Keyword
7301	Aquatic bioproduction science	1 Aquatic environment
		2 Biological environment
		3 Environmental conservation
		4 Water/Sediment quality
		5 Ocean/Material cycle
		6 Seaweed beds/Tidal flats
		7 Restoration/Regeneration
		8 Environmental microbiology
		A 9 Plankton
		10 Nekton
		11 Benthos
		12 Red tide
		13 Environmental toxicology
		14 Aquatic ecosystem
		15 Global warming
		16 Biodiversity
		17 Remote sensing
		18 Taxonomy/Morphology
		19 Ecology/Ethology
		20 Bio-logging
		21 Resources/Resource management
		22 Fisheries
		23 Aquaculture
		B 24 Aquatic animals
		25 Aquatic plants
		26 Genetics/Heredity/Breeding
		27 Fish disease/Aquatic pathology
		28 Fisheries Engineering
		29 Fishing community/Fisheries Policy
		30 Fisheries Economics/Management/Marketing
		31 Fisheries education
		32 Fisheries Development
7302	Aquatic life science	1 Developmental biology
		2 Physiology
		3 Immunology/Biological defense
		4 Metabolism/Enzyme
		5 Fish nutrition
		6 Biochemistry
		7 Molecular biology
		8 Marine genomics
		9 Genetic resources
		10 Bioengineering
		11 Functional microbiology
		12 Glycobiology
		13 Chemical biology
		14 Biomimetics
		15 Bioactive substance
		16 Natural products chemistry
		17 Biopolymer
		18 Analytical chemistry
		19 Aquatic food chemistry
		20 Functional food
		21 Aquatic food processing/Preservation
		22 Food microbiology
		23 Food hygiene and sanitation
		24 Aquatic biotoxin
		25 Food safety
		26 Zero emission
		27 Aquatic biomass utilization
		28 Bioenergy

**Discipline: Agricultural science in society and economy**

Item Number	Research Field	Screening Sub-panel Number / Keyword
7401	Agricultural science in management and economy	1 Food Self-Sufficiency and Food Security
		2 Food Economy
		3 Economy and Planning of Rural Community and Fishing Village
		4 Agriculture Related Industries
		5 Economy of Food, Agriculture and Environment
		6 Food Policy
		7 Policy for Agriculture, Forestry and Fishery
		8 International Food Economy and Trade
		9 Investment and Finance for Agriculture, Forestry and Fishery
		10 Distribution of Food and Agriculture and Fishery Products
		11 Food System
		12 Food Safety and Risk Management
		13 Management in Agriculture, Forestry and Fishery
		14 Assessment of Technology and Knowledge in Agriculture, Forestry and Fishery
		15 Management, Diagnosis and Evaluation on Business
		16 Land Utilization
		17 Value Added to Agricultural Product
		18 Marketing
		19 Management Ethics and CSR
		20 Cooperative Farming in Community
		21 Organizational Support to Agriculture, Forestry and Fishery
		22 Driving Force for Management
		23 Information System for Food and Agriculture
		24 Entry of Enterprise into Agriculture
		25 Agricultural Extension
7402	Agricultural science in rural society and development	1 Rural Society
		2 Rural Life
		3 Direct Linkage with Production and Consumption in Local Area
		4 Education for Food and Agriculture
		5 Leader in Rural Community and NPO
		6 Interaction between Urban and Rural Inhabitant
		7 Women Participation in Agriculture and Social Activities
		8 Society and Culture in Rural Community
		9 Multiple Functions in Agriculture and Rural Community
		10 Agricultural History and Comparison on Farming System
		11 Ideology and Ethics in Agriculture
		12 International Agriculture
		13 International Development for Rural Community and Fishing Village
		14 Project Management for Rural Development
		15 Extension and Transfer on Technology
		16 Dietary Transition
		17 Commons

**Discipline: Agro-engineering**

Item Number	Research Field	Screening Sub-panel Number / Keyword
7501	Rural environmental engineering/ Planning	1 Irrigation and drainage
		2 Reclamation and conservation of agricultural land
		3 Rural planning
		4 Rural environment
		5 Rural landscape and ecosystem
		6 Rural development and sustainability
		7 Material and energy cycle management
		8 Water resources
		9 Renewable Energy
		10 Rural governance
		11 Disaster prevention
		12 Soil environmental conservation
		13 Agricultural facilities and stock management
		14 Rural roads
		15 Rural sewerage
		16 International agriculture and rural development
		17 Hydraulics
		18 Hydrometeorology
		19 Water environment
		20 Soil physics
		21 Soil mechanics
		22 Applied mechanics
		23 Design and construction materials
7502	Agricultural environmental engineering/ Agricultural information engineering	1 Bioproduction system
		2 Bioproduction machinery
		3 Greenhouse horticulture/Plant factory
		4 Environment control in biology
		5 Bioprocessing
		6 Agricultural production environment
		7 Agricultural meteorology/Micrometeorology
		A 8 Meteorological disasters
		9 Global environment and global warming
		10 Environmental remediation and greening process
		11 Renewable energy
		12 Farming technology management
		13 Agricultural labour science
		14 Postharvest engineering
		15 Supply chain management
		16 Bioinstrumentation
		17 Cell measurement techniques
		18 Nondestructive measurement
		19 Imaging analysis
		20 Environmental stresses
		21 Biosensing
		22 Image information and image recognition
		23 Agribioinformatics
		B 24 Remote sensing
		25 Geographic information system
		26 Modeling/Simulation
		27 Computer network and ICT
		28 Agricultural robotics
		29 Precision agriculture
		30 Bioenvironmental information
		31 Agricultural information
		32 Farming information

**Discipline: Animal life science**

Item Number	Research Field	Screening Sub-panel Number / Keyword
7601	Animal production science	1 Breeding
		2 Reproduction
		A 3 Nutrition/Feeding
		4 Feed/Feedstuff
		5 Metabolism/Endocrine control
		6 Animal hygiene
		7 Animal management/Welfare
		8 Environment
		9 Facilities/Production system
		10 Grassland/Pasture
		B 11 Grazing
		12 Animal product
		13 Manure management
		14 Livestock biomass
		15 Livestock farming
		16 Marketing of livestock products
7602	Veterinary medical science	1 Pathology
		2 Pathophysiology
		3 Pharmacology
		4 Toxicology
		A 5 Pathogenic microorganism
		6 Zoonosis
		7 Parasitology
		8 Veterinary public health
		9 Epidemic prevention
		10 Epidemiology
		11 Internal medicine
		12 Surgery
		13 Veterinary reproduction/Obstetrics
		14 Diagnostics/Laboratory examination
		B 15 Clinical pathology
		16 Therapy/Nursing
		17 Disease prevention and control
		18 Anesthesia/Analgetics
		19 Radiology
		20 Animal welfare/Ethics
7603	Integrative animal science	1 Physiology
		2 Histology
		3 Anatomy
		4 Endocrinology
		5 Cellular function
		6 Immunology
		7 Host defense
		A 8 Genetics
		9 Epigenetics
		10 Genome
		11 Development/Differentiation
		12 Bioinformatics
		13 Ecology
		14 Ethology
		15 Psychology
		16 Genetic engineering
		17 Cellular engineering
		18 Developmental biotechnology
		19 Stem cell
		20 Regenerative therapy
		21 Imaging
		B 22 Wildlife
		23 Experimental animal
		24 Animal models of disease
		25 Companion animal
		26 Animal-assisted therapy
		27 Bioresource
		28 Biodiversity

**Discipline: Boundary agriculture**

Item Number	Research Field	Screening Sub-panel Number / Keyword
7701	Insect science	1 Insect technology and biomaterial production
		2 Sericulture, silk
		3 Insect pathology
		4 Entomopathogenic microbes and viruses
		5 Insect ecology
		6 Insect physiology and biochemistry
		7 Insect molecular biology
		8 Insect behavior
		9 Insect population, community
		10 Insect evolution and systematics
		11 Insect genetics and genomics
		12 Insect development and reproduction
		13 Life history, seasonal adaptation
		14 Chemical ecology
		15 Chemical and physical communications
		16 Symbiosis, parasitism
		17 Spiders, mites, nematodes
		18 Apiculture
		19 Pollination
		20 Social insects
		21 Insect mimetics
7702	Environmental agriculture (including landscape science)	1 Biomass
		2 Biological environment
		3 Genetic resource
		4 Biodiversity
		5 Environmental analysis
		6 Environmental remediation
		7 Environmental purification
		8 Aquatic pollution
		9 Environmental adaptability
		A 10 Ecosystem services
		11 Resources-Environment balance
		12 Resource recycling systems
		13 Environmental value-assessment
		14 Low-carbon society
		15 LCA
		16 Environmentally friendly agriculture
		17 Watershed management
		18 Integrated agriculture and fisheries
		19 Regional agriculture
		20 Landscape design
		21 Landscape architecture
		22 Open space planning
		23 Landscape formation/Landscape conservation
		24 Cultural landscape
		25 Nature conservation/Nature restoration
		26 Urban environmental design
		27 Natural environmental assessment
		28 Biotope
		B 29 Public interest functions of ecosystem
		30 Landscape ecology
		31 Urban farmland
		32 Open space management
		33 Urban park/Disaster prevention park
		34 National park
		35 Planting engineering
		36 Urban green plant
		37 Tourism/Green-tourism, recreation
		38 Participatory town planning
		39 Social and environmental contribution green

(Discipline: Boundary agriculture )

Item Number	Research Field	Screening Sub-panel Number / Keyword
7703	Applied molecular and cellular biology	1 Cell biology
		2 Chromosome engineering
		3 Glycosylation engineering
		4 Organelle engineering
		5 Cell / Tissue engineering
		6 Epigenetics
		7 Gene expression
		8 Development/Differentiation control
		9 Cell-cell interaction
		10 Intermolecular interaction
		11 Biological interaction
		12 Biosensor
		13 Cellular function
		14 Molecular information
		15 Functional-molecule design
		16 Proteomics
		17 Metabolomics
		18 Production of useful material
		19 Culture engineering
		20 Biologics



**Area: Medicine, dentistry, and pharmacy**

**Discipline: Pharmacy**

Item Number	Research Field	Screening Sub-panel Number / Keyword
7801	Chemical pharmacy	1 Organic chemistry
		2 Synthetic organic chemistry
		3 Biomolecules
		4 Natural products chemistry
		5 Mechanistic organic chemistry
		6 Heterocyclic chemistry
		7 Asymmetric synthesis
7802	Physical pharmacy	1 Physical chemistry
		2 Analytical chemistry
		3 Galenical pharmacy
		4 Biophysical chemistry
		5 Isotope pharmaceutical chemistry
		6 Biocomplex chemistry
		7 Molecular structure science
		8 Structural biology
		9 Imaging
		10 Drug delivery
		11 Information science
7803	Biological pharmacy	1 Biochemistry
		2 Molecular biology
		3 Immunology
		4 Cell biology
		5 Developmental biology
		6 Functional genomics
		7 Physiological chemistry
		8 Endocrinology
7804	Pharmacology in pharmacy	1 Pharmacology
		2 Analytical pharmacology
		3 Neurobiology
		4 Drug therapeutics
		5 Cellular signal transduction
		6 Toxicology and drug safety
		7 Systems pharmacology
		8 Pharmacogenomics
7805	Natural medicines	1 Pharmacognosy
		2 Medicinal resources
		3 Natural medicines
		4 Traditional Chinese-Japanese medicines
		5 Ethnomedicines
		6 Biosynthesis
		7 Antibiotics and microbial medicines
		8 Bioactive natural compounds
		9 Medicinal foods
7806	Drug development chemistry	1 Medicinal chemistry
		2 Medicinal molecular design
		3 Lead discovery
		4 Functional science of medicinal molecules
		5 Genomic drug development
		6 Regulatory science
		7 Chemical biology
		8 Biopharmaceutical
7807	Environmental and hygienic pharmacy	1 Environmental hygiene
		2 Environmental chemistry
		3 Environmental dynamics
		4 Food hygienics
		5 Chemical nutrition
		6 Microbiology and infectious diseases
		7 Toxicology
		8 Environmental toxicology
		9 Cosmetic and fragrance science
		10 Hygienic tests

**(Discipline: Pharmacy)**

Item Number	Research Field	Screening Sub-panel Number / Keyword
7808	Medical pharmacy	1 Pharmacokinetics
		2 Drug metabolism
		3 Transporter
		4 Screening system for pharmacokinetics and metabolism
		5 Prediction system for human pharmacokinetics and metabolism
		6 Clinical chemistry
		7 Personalized medicine
		8 Clinical pharmaceutical sciences
		9 Medical pharmaceuticals
		10 Drug information and clinical toxicology
		11 Drug economics
		12 Social pharmacy
		13 Hospital pharmacy and pharmacy administration
		14 Clinical pharmacy education

**Discipline: Basic medicine**

Item Number	Research Field	Screening Sub-panel Number / Keyword
7901	General anatomy (including histology/embryology)	1 Gross anatomy
		2 Functional anatomy
		3 Clinical anatomy
		4 Comparative anatomy
		5 Radiological anatomy
		6 Morphogenesis and embryogenesis
		7 Teratology
		8 Experimental morphology
		9 Anatomical education
		10 Cytology
		11 Histology
		12 Cell differentiation and tissue formation
		13 Cell function and morphology
		14 Ultrastructural morphology
		15 Molecular morphology
		16 Histochemistry
		17 Microscopic technology
7902	General physiology	1 Molecular and cellular physiology
		2 Biological membrane, channel, transporter and active transport
		3 Receptor and intracellular signal transduction
		4 Stimulation-secretion coupling
		5 Epithelial function
		6 Heredity, fertilization, development and differentiation
		7 Cellular proliferation and cell death
		8 Cellular motility, morphogenesis and intercellular interaction
		9 Microcirculation, peripheral circulation, circulation dynamics and regulation
		10 Ventilation mechanics, blood gas function and respiratory control
		11 Gastrointestinal motility, absorption and digestion
		12 Renal function, body fluids, and acid-base balance
		13 Blood coagulation and rheology
		14 Pathophysiology
		15 System physiology and physiome
		16 Comparative, developmental and genome physiology
		17 Muscular physiology

## (Discipline: Basic medicine)

Item Number	Research Field	Screening Sub-panel Number / Keyword
7903	Environmental physiology (including physical medicine and nutritional physiology)	1 Environmental physiology
		2 Physical medicine
		3 Nutritional physiology
		4 Adaptive and associative physiology
		5 Biorhythm
		6 Growth, development, and aging
		7 Stress
		8 Space medicine
		9 Behavioral physiology
		10 Biological clock
		11 Hyperthermia physiology
		12 Feeding regulation
		13 Sleep and arousal
		14 Reproductive physiology
7904	General pharmacology	1 Kidney
		2 Smooth muscle and skeletal muscle
		3 Gastrointestinal
		4 Inflammation and immunity
		5 Bioactive substance
		6 Central nervous system and peripheral nerve
		7 Spinal cord and pain
		8 Receptor, channel, transport system, and signal transduction system
		9 Cardiovascular system and hematology
		10 Drug discovery and pharmacogenomics
		11 Drug therapy and toxicology
		12 Herbal medicine and pharmacology of natural products
7905	General medical chemistry	1 Biomolecular medicine
		2 Cellular biochemistry (cellular medical chemistry)
		3 Genomic biochemistry (genomic medical chemistry)
		4 Developmental medicine
		5 Regenerative medicine
		6 Aging medicine
		7 Higher order life sciences
		8 Intracellular signaling
7906	Pathological medical chemistry	1 Abnormal metabolism
		2 Molecular pathogenesis
		3 Molecular and gene diagnosis
		4 Molecular oncology
		5 Molecular pathogenesis of nutrition
7907	Human genetics	1 Medical genome science
		2 Molecular genetics
		3 Cytogenetics
		4 Genetic biochemistry
		5 Genetic epidemiology
		6 Genetic diagnostics
		7 Gene therapy
		8 Social genetics
		9 Epigenetics
7908	Human pathology	1 Digestive system and salivary gland
		2 Urogenital and endocrine organs
		3 Brain and nervous system
		4 Respiratory and mediastinal organs
		5 Cardiovascular system
		6 Bone, joint, muscle, skin and sense organs
		7 Blood
		8 Diagnostic pathology
		9 Diagnostic cytopathology
		10 Diagnostic molecular pathology
		11 Diagnostic immunopathology
		12 Environmental pathology
		13 Transplantation pathology

## (Discipline: Basic medicine)

Item Number	Research Field	Screening Sub-panel Number / Keyword
7909	Experimental pathology	1 Cell injury
		2 Tumors
		3 Genetic disorders
		4 Environmental diseases
		5 Regenerative medicine
		6 Inflammation
		7 Hemodynamic disorders
		8 Immune diseases
		9 Infectious diseases
		10 Metabolic diseases
		11 Pediatric pathology
		12 Animal models
7910	Parasitology (including sanitary zoology)	1 Helminth
		2 Protozoa
		3 Arthropod vector
		4 Pathogenic animals
		5 International health
		6 Molecules and cells
		7 Development and genetics
		8 Epidemiology
		9 Diagnosis and treatment
		10 Prevention and control
7911	Bacteriology (including mycology)	1 Genomes and genetics
		2 Structure and physiology
		3 Classification
		4 Pathogenicity
		5 Toxins and effectors
		6 Drug resistance
		7 Epidemiology
		8 Diagnosis and treatment
		9 Prevention and control
7912	Virology	1 Molecules and structure
		2 Cells and replication
		3 Organisms and pathogenicity
		4 Epidemiology
		5 Diagnosis and treatment
		6 Prevention and control
		7 Prions
7913	Immunology	1 Cytokines
		2 Signal transduction
		3 Antibodies and complements
		4 Innate immunity
		5 Acquired immunity
		6 Mucosal immunity
		7 Immunological memory
		8 Immune tolerance and autoimmunity
		9 Immune surveillance and tumor immunology
		10 Immunodeficiency
		11 Allergy and immune-related disorder
		12 Infection immunity
		13 Inflammation
		14 Immunoregulation and transplantation immunology

**Discipline: Boundary medicine**

Item Number	Research Field	Screening Sub-panel Number / Keyword
8001	Medical sociology	1 Bioethics
		2 Medical, Dental and Pharmaceutical Education
		3 Medical history
		4 Health economics
		5 Medical behavioral science



## (Discipline: Boundary medicine)

Item Number	Research Field	Screening Sub-panel Number / Keyword
8002	Applied pharmacology	1 Clinical pharmacology
		2 Clinical trials and ethics
		3 Pharmaceutical therapeutics
		4 Adverse drug reaction and drug interaction
		5 Drug transport mechanism
		6 Pharmacogenomics
		7 Clinical isotope pharmacy
		8 Medical devices and pharmacy
		9 Drug metabolic enzyme and transporter
		10 Imaging
		11 Research using human tissue
		12 Drug dependence and drug sensitivity
		13 Genetic diagnosis and gene therapy
		14 Drug delivery
		15 Pharmacoepidemiology
8003	Laboratory medicine	1 Clinical laboratory medicine
		2 Clinical pathology
		3 Clinical chemistry
		4 Immunology and serology
		5 Clinical laboratory system
		6 Genetic testing
		7 Clinical microbiology
		8 Laboratory oncology
		9 Clinical hematology
		10 Physiological laboratory testing
8005	Medical Physics and Radiological Technology	1 Medical Physics
		2 Radiological Technology and Science
		3 Radiological Technology and Engineering
		4 Radiological Diagnostic Technology
		5 Radiological Therapeutic Technology
		6 Nuclear Medicine Physics
		7 Medical Imaging Physics and Engineering
		8 Medical Imaging Informatics
		9 Radiation Measurement Technology
		10 Particle Radiation Therapeutics
		11 Accelerator Engineering
		12 Radiation Protection Technology
8004	Pain science	1 Evaluation methods of pain
		2 Epidemiology of pain
		3 Analgesic
		4 Non-drug therapy
		5 Pain producing substance (PPS), Algesic substance
		6 Generating or exacerbating mechanism of pain
		7 Neural mechanism of pain
		8 Hyperalgesia
		9 Genetic factors of pain
		10 Development or aging factors of pain
		11 Gender difference in pain
		12 Pain withdrawal reflex
		13 Numbness, Hypesthesia
		14 Nociceptor
		15 Histopathic pain, Histotoxic pain
		16 Neuropathic pain, Neuralgia
		17 Psychological pain
		18 Itching, pruritus
		19 Epidemiology of itching, or pruritus
		20 Antipruritics
		21 Itch-producing substances
		22 Generating or exacerbating mechanism of pruritus
		23 Neural mechanism of pruritus
		24 Curettage behavior
		25 Hyperknesis
		26 Psychological itching
		27 Development or aging factors of itching

## Discipline: Society medicine

Item Number	Research Field	Screening Sub-panel Number / Keyword
8101	Epidemiology and preventive medicine	1 Epidemiology
		2 Clinical epidemiology
		3 Clinical trial
		4 Environmental epidemiology
		5 Molecular genetic epidemiology
		6 Preventive medicine
		7 Medical examination
		8 Screening
		9 Clinical statistics
		10 Mass-screening
		11 Health management
		12 Health promotion
8102	Hygiene and public health	1 Molecular preventive medicine
		2 Molecular epidemiology
		3 Food sanitation
		4 Environmental health
		5 Occupational health
		6 Environmental toxicology
		7 Community health
		8 Community medicine
		9 Maternal and child health
		10 Adult health
		11 Elderly health
		12 Global Health
		13 Health administration
		14 Health policy
		15 Care and welfare
8103	Medical and hospital management	1 Hospital management
		2 Medical administration
		3 Medical informatics
		4 Quality of medical care
		5 Medical record management
		6 Risk management
		7 Nosocomial infection management
		8 Critical path
8104	Legal medicine	1 Forensics
		2 Forensic examination
		3 Alcohol research
		4 Forensic odontology
		5 DNA polymorphism
		6 Forensic pathology

## Discipline: Clinical internal medicine

Item Number	Research Field	Screening Sub-panel Number / Keyword
8201	General internal medicine (including psychosomatic medicine)	1 Psychosomatic internal medicine
		2 Stress science
		3 Oriental medicine
		4 Alternative medicine
		5 Palliative medicine
		6 General medicine
		7 Primary care
		8 Geriatrics
8202	Gastroenterology	1 1 Upper gastroenterology (esophagus, stomach, duodenum)
		2 2 Lower gastroenterology (small intestine, colon)
		3 3 Hepatology
		4 4 Biliary-Pancreatolology
		5 5 Digestive endoscopy
8203	Cardiovascular medicine	1 1 Clinical Cardiology
		2 2 Clinical Angiology
		3 3 Molecular Cardiology
		4 4 Molecular Angiology
8204	Respiratory organ internal medicine	1 1 Clinical respirology
		2 2 Molecular and cellular respirology
8205	Kidney internal medicine	1 1 Nephrology
		2 2 Hypertension
		3 3 Water and electrolyte metabolism
		4 4 Hemodialysis

## (Discipline: Clinical internal medicine)

Item Number	Research Field	Screening Sub-panel Number / Keyword	
8206	Neurology	1	1 Molecular pathophysiology
		2	2 Neuroimmunology
			3 Clinical molecular neurogenetics
		3	4 Clinical neurophysiology
			5 Clinical neuromorphology
			6 Clinical neuropsychology
			7 Functional neuroimaging
8207	Metabolomics	1	1 Disturbances of energy and carbohydrate metabolism
		2	2 Metabolic syndrome
			3 Abnormal lipid metabolism
		3	4 Disorder of purine metabolism
			5 Abnormal bone and calcium metabolism
			6 Metabolic electrolyte abnormality
8208	Endocrinology	1	1 Endocrinology
		2	2 Reproductive endocrinology
8209	Hematology	1	1 Hematology
		2	2 Thrombosis/Hemostasis
			3 Transfusion medicine
			4 Hematology/Oncology
		3	5 Hematopoietic stem cell transplantation
			6 Hematology/Immunology
			7 Immune regulation
8210	Collagenous pathology/ Allergology		1
2		2 Rheumatology	
		3 Allergology	
3		4 Clinical immunology	
		5 Inflammation	
8211	Infectious disease medicine	1	1 Infection diagnosis
		2	2 Infection therapy
		3	3 Infection prevention
		4	4 International infection science
		5	5 Infection epidemiology
		6	6 Opportunistic infection
8212	Pediatrics	1	1 Developmental pediatrics
		2	2 Growth and developmental medicine
			3 Pediatric metabolism/Nutrition
			4 Hereditary/Teratology
			5 Pediatric health
			6 Pediatric social medicine
		3	7 Pediatric neurology
			8 Pediatric endocrinology
		4	9 Pediatric hematology
			10 Pediatric oncology
			11 Pediatric immunology/Allergy/Connective tissue diseases
			12 Pediatric infectious disease
		5	13 Pediatric cardiology
			14 Pediatric respirology
			15 Pediatric nephrology/Urology
			16 Pediatric gastroenterology
8213	Embryonic/ Neonatal medicine	1	1 Prenatal diagnosis
		2	2 Fetal medicine
		3	3 Teratology
		4	4 Neonatal medicine
		5	5 Premature baby medicine
8214	Dermatology	1	1 Skin diagnostics
		2	2 Mechanisms of skin diseases
			3 Cutaneous physiology and biology
			4 Laser/photobiology
			5 Dermatologic oncology
		3	6 Pigment cell biology
			7 Cutaneous immunology and inflammation
			8 Infectious diseases
			9 Regenerative dermatology
			10

## (Discipline: Clinical internal medicine)

Item Number	Research Field	Screening Sub-panel Number / Keyword	
8215	Psychiatric science	1	1 Psychopharmacology
		2	2 Clinical molecular genetics
			3 Psychophysiology
		3	4 Psychopathology
			5 Geriatric psychiatry
			6 Social psychiatry
		4	7 Child and adolescence psychiatry
			8 Forensic psychiatry
			9 Neuropsychology
			10 Liaison psychiatry
			11 Psychiatric rehabilitation
8216	Radiation science	1	1 Medical imaging (including diagnostic radiology)
		2	2 X-Ray/CT
			3
		4 Radiopharmaceuticals/Contrast medium	
		5 Magnetic resonance imaging	
		4	6 Radiation protection and safety management
			7 Medical imaging technology
			8 Nuclear medicine (including PET)
			9 Interventional radiology
		5	10 Angioplasty/Osteoplasty/Vascular embolization
			11 Radiofrequency ablation (RFA)/Stent treatment/Reserver treatment
			12 Hyperthermia
			13 Ultrasound therapy
			14 Radiation emergency medicine
			15 Medical radiation biology
			16 Therapeutic radiology
			17 Radiation oncology
		6	18 Radiotherapy physics
			19 Radiotherapy biology
			20 Particle beam therapy

## Discipline: Clinical surgery

Item Number	Research Field	Screening Sub-panel Number / Keyword	
8301	General surgery	1	1 General surgery
		2	2 Transplant surgery
			3 Artificial organs science
			4 Endoscopic surgery
			5 Robotic surgery
			6 Experimental surgery
		3	7 Endocrine surgery
			8 Breast surgery
			9 Surgical metabolism and nutrition
8302	Digestive surgery		1
2		2 Gastroduodenal surgery	
		3 Colorectal surgery	
3		4 Hepatic surgery	
		5 Surgery for spleen and portal vein	
		6 Biliary surgery	
4		7 Pancreatic surgery	
8303	Cardiovascular surgery	1	1 Coronary surgery
		2	2 Heart valve surgery
			3 Surgery in cardiomyopathy
			4 Congenital cardiovascular surgery
		3	5 Aortic surgery
			6 Peripheral vascular surgery
			7 Phlebology
			8 Lymphology
8304	Respiratory surgery		1
2		2 Tracheal surgery	
		3 Mediastinal surgery	
4		4 Pleural surgery	
5		5 Chest wall surgery	

## (Discipline: Clinical surgery )

Item Number	Research Field	Screening Sub-panel Number / Keyword
8305	Neurosurgery	1 Neurotrauma
		2 Cerebrovascular disorders
		3 Neuro-endovascular surgery
		4 Experimental neurosurgery
		2 5 Neuro-oncology
		6 Diagnostic neuroimaging
		7 Functional neurosurgery
		3 8 Pediatric neurosurgery
		9 Spinal cord/Spinal diseases
		10 Neurosurgical instruments
		11 Stereotactic radiosurgery
8306	Orthopaedic surgery	1 Spinal disorders
		2 Muscle/Nerve disorders
		3 Physical therapy and rehabilitation science
		4 Bone and soft tissue tumors
		2 5 Limb reconstruction surgery
		6 Pediatric orthopaedics
		7 Musculoskeletal traumatology
		8 Joint disorders
		9 Rheumatic diseases
		10 Bone and cartilage metabolism
		11 Sports medicine
8307	Anesthesiology	1 Anesthesiology
		2 Anesthesiology and Resuscitology
		2 3 Perioperative management
		3 4 Pain management
8308	Urology	1 Oncology
		2 Neurourology and Urodynamics
		3 Infectious diseases
		2 4 Regenerative medicine
		5 Regenerative medicine
		6 Teratology
		7 Adrenal surgery
		3 8 Kidney transplantation
		9 Andrology
8309	Obstetrics and gynecology	1 Obstetrics
		2 Reproductive medicine
		3 Gynecology
		2 4 Gynecologic oncology
		5 Menopause medicine
8310	Otorhinolaryngology	1 Otology
		2 Equilibrium Research
		3 Audiology
		4 Rhinology
		2 5 Allergology
		6 Skull Base Surgery
		7 Stomato-pharyngology
		8 Laryngology
		3 9 Broncho-esophagology
		10 Head and Neck Surgery
8311	Ophthalmology	1 Clinical research
		2 Epidemiology study
		3 Social medicine
		4 Ocular biochemistry and molecular biology
		5 Ocular cell biology
		2 6 Ophthalmic genetics
		7 Ocular histology
		8 Ocular pathology
		9 Ocular pharmacology
		10 Ocular physiology
		11 Ocular developmental and regenerative biology
		3 12 Ocular immunology
		13 Ocular microbiology/Infectious diseases
		14 Science orthoptic
		15 Optics
		16 Ophthalmic medical engineering

## (Discipline: Clinical surgery )

Item Number	Research Field	Screening Sub-panel Number / Keyword
8312	Pediatric surgery	1 Pediatric digestive surgery
		2 Fetal surgery
		3 Pediatric urology
		4 Pediatric chest surgery
		5 Pediatric oncology
8313	Plastic surgery	1 Reconstructive surgery
		2 Wound healing science
		3 Microsurgery
		4 Tissue culture/Transplantation
		5 Regenerative medicine
8314	Emergency medicine	1 Intensive care medicine
		2 Trauma surgery
		3 Emergency resuscitation science
		4 Acute toxicology
		5 Disaster medicine

**Discipline: Dentistry**

Item Number	Research Field	Screening Sub-panel Number / Keyword
8401	Morphological basic dentistry	1 Oral anatomy (including histology/embryology)
		2 Oral pathology
		3 Oral bacteriology
8402	Functional basic dentistry	1 Oral physiology
		2 Oral biochemistry
		3 Dental pharmacology
8403	Pathobiological dentistry/ Dental radiology	1 Experimental oncology
		2 Immunity/Infection/Inflammation
		3 General dental radiology
		4 Oral and maxillofacial diagnostic radiology
8404	Conservative dentistry	1 Operative dentistry
		2 Endodontology
8405	Prosthodontics/ Dental materials science and engineering	1 General prosthodontics
		2 Removable denture prosthodontics
		3 Fixed partial denture prosthodontics
		4 Oral and maxillofacial prosthetics
		5 Stomatognathic function
		2 6 Dental engineering
		7 Dental materials science
8406	Dental engineering/ Regenerative dentistry	1 Biomaterials science
		2 Regenerative dentistry
		3 Oral implantology
8407	Surgical dentistry	1 1 Oral and maxillofacial surgery
		2 2 Clinical oncology
		3 3 Dental anesthesiology
		4 4 Laboratory medicine
		5 5 Oral maxillofacial reconstructive surgery
8408	Orthodontics/ Pediatric dentistry	1 1 Orthodontics
		2 2 Pediatric dentistry
		3 3 Pediatric oral health science
		4 4 Stomatognathic function and mechanics
8409	Periodontology	1 Pathogenesis and diagnosis
		2 Periodontics
		3 Periodontal tissue engineering
		4 Preventive periodontology
8410	Social dentistry	1 Dental hygiene (including public hygiene/nutrition)
		2 Preventive dentistry
		3 Oral health administration and management
		4 Forensic odontology
		2 5 Gerodontology
		6 Psychosomatic medicine dentistry
		7 Dental education

**Discipline: Nursing**

Item Number	Research Field	Screening Sub-panel Number / Keyword
8501	Fundamental nursing	1 Nursing philosophy
		2 Nursing ethics
		3 Nursing art
		4 History of nursing
		2 5 Nursing education
		6 Nursing management
		3 7 Nursing policy/Administration
		8 Disaster nursing
8502	Clinical nursing	1 Critical care/Emergency nursing
		2 Perioperative nursing
		3 Adult nursing (chronic)
		4 Rehabilitation nursing
		2 5 Terminal care
		6 Oncology nursing
8503	Lifelong developmental nursing	1 Family health nursing
		2 Maternal/Women's health nursing
		3 Midwifery
		2 4 Child health nursing
8504	Gerontological nursing	1 Gerontological nursing
		2 Rehabilitation nursing
		3 Psychiatric/Mental health nursing
		4 Home care nursing
		2 5 Visiting nursing
		6 Family health nursing
8505	Community health nursing	1 Community health nursing
		2 Occupational and environmental health nursing
		2 3 Public health nursing
		4 School nursing

## Attached Table 4 Generative Research Fields

### ○Fields Designated for FY2014 Recruitment

Area	Detail	Area Number	Set Period
Neo-Gerontology	<p>The percentage of the population aged 65 or older in Japan exceeds 23%, the highest in the world. Japan's "aging society" is about to enter a new stage that mankind has never experienced, so many of the problems that Japan is likely to face are at the world's forefront. Up until recently, research on issues related to aging has been conducted in the field of gerontology. It has been pointed out, however, that studies that treat the over-65 as a homogenous group with declining conditions have limitations. Certainly, there are frail people who need social support and care, but there are also healthy elderly who are physically fit, maintain economic independence, and continue to exhibit leadership and cultural vigor. Thus, the elderly are not monolithic but rather a diverse group of people, so basic scientific research must be advanced that is premised on recognition of important variations among them. Such research should explore, in a detailed and precise manner, whether apparent correlations between various aging attributes and indicators are merely pseudo-correlations, cause-and-effect related, or individual phenomena.</p> <p>With this background in mind, we have established a new research field, "Neo-Gerontology," which works to capture evolving academic trends that point to heterogeneity among the elderly.</p> <p>To adapt to the reality of an aging society, we will need to redefine the role of older people and reexamine how they are situated within the structure of society. The transformation of the society, in which the elderly are of course part, should itself be readdressed. It will also be necessary to question, from a philosophical point of view, what aging is/means. We, thus, welcome challenging research proposals from all areas. They would include, for example, historical, philosophical, or comparative-cultural studies on values and richness associated with aging; folkloric and cultural-anthropological analyses of tacit knowledge as a product of accumulated life-experiences; comparative studies of aging among various countries; psychological investigations of individual differences in various aspects of aging that cannot be captured by averaging; analyses of changes in the role structure based on age; studies on the life courses of men and women as related to longevity; thanatology, or "death and life studies" on attitudes towards death as an end of life; research on the structure of aging society that will underscore future social policies; exploration of ethics in the coming new stage of aging society; collaborative studies between fields of engineering, medicine and others that clarify the nature of aging—all grounded in a perspective of variety existing among older people.</p>	N001	FY2014 — FY2016
Mathematical Sciences in Search of New Cooperation	<p>Mathematics has long been used as an indispensable descriptive language in many science fields such as physics. Even in research fields where a firm relationship with mathematics has not been established yet, a new mathematical concept might emerge in the future. In this program, we call ambitious proposals intending to find out new mathematical structures possibly hidden under complex phenomena and functions in nature, life, society, human's feelings and mind, etc. Discovery of such new mathematical concepts might link different research subjects so far thought to be unrelated, and will eventually contribute to establish a new research field. Numerous possibilities would exist in such studies. Toward this goal, we believe it essential to set up new possible targets based on bottom-up collaborations between researchers of mathematics and of other fields. In the course of these efforts, many unexpected results are expected to emerge. Because of this reason, we recommend the proposal made by a collaborative team consisting of researchers of mathematics and of other fields, no matter who is a principal investigator. Ambitious proposals from researchers in established fields intending to step forward toward an entirely new direction in collaboration with researcher of mathematics are also encouraged. We enthusiastically welcome new, inventive, and unexpected proposals from all academic areas, which may be regarded as being out of consideration in the scheme of current academic fields.</p>	N002	

Area	Detail	Area Number	Set Period
Food Cycle Research	<p>Stable, secure and sustainable food production and supply form the basis of human existence and prosperity. Naturally, food production depends on the quality and availability of sun, water and arable land. So far, humanity has maintained food production by means of circulating natural resources. Currently, Japan can consider itself blessed with sufficient sun, water and arable land. However, we must address concerns about increasing risks associated with global climate change, natural catastrophes, the depletion of water resources, damages to the marine environment and depletion of fisheries. In addition, the rapid rise of the global human population also carries the danger of overwhelming the food supply. Furthermore, social factors, including agricultural policy, land and water use, energy consumption of food generation and transportation, as well as national food security are cause for concern. Food production relies on sustainable use of “immovable” arable land and water. The emerging problems threatening sustainable food production make research into maintenance of natural resources necessary. Projects should cover a comprehensive area of related issues, pertaining to the current picture of food production, including animal feed and exploration of potential productivity increases. To name a few, investigations into the water cycle across forests, arable land, rivers, lakes and the sea, the organic and inorganic material cycles to secure soil quality, as well as the role of plants and animals, insects and microorganisms in food production would be of importance. Studies should also provide methodologies for sustainable use of fertilizer and fieldwork into agrochemicals and other means of severing natural circulation. This is of special importance as natural nitrogen circulation remains insufficient for agricultural production. In addition, experimental approaches in laboratories or at research farms to allow proof of concept testing obtained from combined survey studies should be investigated.</p> <p>Beyond scientific study, social issues associated with changes in the agricultural environment should also be considered. These would entail international relationships influencing food supply and demand, domestic legal mechanisms governing land and water use as well as agricultural management. Furthermore, attention should be paid to political issues influencing price stability or production adjustment, as well as administrative issues controlling food stock. Accordingly, we intend to establish a new area, called “Food Cycle Research,” to promote a discussion between science and sociology on food production and supply. This area should include approaches from all fields to study vital activity in the cultivation of plants, animals and microorganisms in food production. This area aims at increasing the mutual understanding between agriculture, forestry, fishery and ecology in an environmental context to describe how the material cycle, which sustains life, interacts with the social sphere. Applications relating to food production and supply from all fields of the natural sciences and sociology are encouraged.</p>	N003	FY2014 — FY2016

(Note 1)

This table applies only to the screening division “Generative Research Fields” within the categories “Scientific Research (B)” and “Scientific Research (C).”

(Note 2)

For each field, applications may be submitted during the first three years of the established application period. Applications selected in the first year are given a project duration of 3-5 years; in the second year, a duration of 3-4 years; and in the third year, a duration of 3 years.

## **IV. Instructions & Procedures for Those Who Have Already Been Accepted**

### **1. On the handling of research projects that are scheduled to be continued in FY2014 (hereinafter called “continued research projects”).**

It is not necessary to submit application forms for continued research projects. (However, in order to receive KAKENHI, it is necessary to prepare and to submit the necessary documents, like the grant application form, after receiving a notification of the informal decision to grant the funding.) Moreover, as a general rule, it is not possible to decline a continued research project and to apply for a new research project. However, the applicant should verify that, depending of the research category, the handling of research projects will be as mentioned below.

#### **(1) Specially Promoted Research**

##### **1) If the applicant would like to make significant changes in the research project.**

If the applicant would like to make significant changes in the research project, he/she needs to submit the application forms. Because the application procedure is the same as for “Preparing the Application (Proposal for Grant-in-Aid) and Submitting the Application (Proposal for Grant-in-Aid)” (see page 43), the applicant should verify it. Furthermore, when preparing the Proposal for Grant-in-Aid, he or she should select the same area as when he or she was accepted for the Desired Area for Screening.

Moreover, since, in this case, the application needs to be screened again, it may happen that the change will not be recognized and that the amount of the budget to be granted will not be granted from FY2014 on.

Moreover, a significant change to the research project can be, concretely speaking, (1) a change to the purpose of the research or a change to the title of the proposed project, (2) a change to the annual plan of the budget that is scheduled to be funded from FY2014 (except a change to the annual plan of the budget making use of the Adjustment Funds), (3) an increase or a reduction of the budget, and a shortening of the research period, etc. Please consult in advance with the Scientific Research Aid Division No. 2 of the Department of Research Projects of the Japan Society for the Promotion of Science (JSPS), in order to know whether the change the applicant wants to make falls under these categories (see “Inquiries”).

## **(2) Research categories except Specially Promoted Research**

### **1) If the applicant would like to make significant changes in the research project.**

If the applicant would like to make significant changes in the research project, he/she needs to submit the application forms. Because the application procedure is the same as for “Preparing the Application (Proposal for KAKENHI) and Submitting the Application (Proposal for KAKENHI)” (see page 43), the applicant should verify it. Moreover, as a general rule, applications for an increase of the budget for continued research projects are not accepted. In addition, **for KAKENHI (Multi-year Fund), KAKENHI (Partial Multi-year Fund) (adjustment funds) and KAKENHI (Series of Single-year Grants) using KAKENHI (Partial Multi-year Fund) grants and the Adjustment Funds, applicants can make changes to the annual plan of the research budget, depending on the needs of the research. Therefore, changes to the annual plan of the research budget that is scheduled to be granted from FY2014, do not fall under the category of significant changes in the research project.**

Moreover, since, in this case, the application needs to be screened again, it may happen that the change will not be recognized and that the amount of the budget to be granted will not be granted from FY2014 on. Therefore, the applicant should consult in advance with the Scientific Research Aid Division No. 1 of the Department of Research Projects of the Japan Society for the Promotion of Science (JSPS), in order to know whether the change the applicant wants to make falls under these categories (see “Inquiries”).

Moreover, even if the applicant makes significant changes in a continued research project, the KAKENHI granted will not change from the KAKENHI that was originally scheduled to be granted.

### **2) If the research proceeded beyond expectation, and the original attainment targets of the continued research project have already been reached**

In case the applicant changes the research category and aims for a new research development (※), because the research proceeded beyond expectation, and because the original attainment targets of the continued research project have already been reached, he or she can apply for a new research project, after submitting a Notice of Completion of Research Project and a Statement of Reason (cf. Supplementary Volume Application Forms and Data Entry) by October 24 (Thursday), 2013. (Documents that arrive later will not be accepted.)

Moreover, please note that, if the content of the Statement of Reason is deemed inappropriate by the screening panel for applications for new research projects, the research project for which a new application is made becomes ineligible for screening, and that, in this case, no funding of



KAKENHI from FY2014 on can be requested for the continued research project that has already been completed.

- ※ “Cases where the applicant changes the research category and aims for a new research development” are cases where the applicant makes a change such as, for example, from “Scientific Research (C) (General)” to “Scientific Research (B) (General)”. However, it also includes cases where the applicant only makes a change to the screening division, such as, for example, a change from “Scientific Research (A) (General)” to “Scientific Research (A) (Overseas Academic Research)”.

## **2. On the Handling of Continued Research Projects in Which the Principal Investigator Has Failed to Submit the Report on the Research Achievements**

In the same way as for new research projects, no KAKENHI will be funded to researchers who do not submit the report on the research achievements at the end of the research, without any reason. Moreover, it may happen that the decision to grant the funding to the researcher in question is cancelled, or that an order to return the grant is issued.

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

## V. Instructions & Procedures for Staff of the Research Institution

A call for proposals for “Grants-in-Aid for Scientific Research KAKENHI” will be conducted together for hitherto known Grants-in-Aid for Scientific Research (hereinafter called “KAKENHI (Series of Single-year Grants)”) and Multi-year Fund Scientific Research Grants (hereinafter called “KAKENHI (Multi-year Fund)”).

### 1. 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).

- 1) Universities and inter-university research institutions
- 2) MEXT facilities and other institutions engaged in scientific research
- 3) Technical colleges
- 4) Institutions designated by the Minister of MEXT (See note.)

(Note) In order to become research institution, institutions not falling under 1) to 3) first need to receive the designation by the Minister of Education, Culture, Sports, Science and Technology (MEXT). Therefore, applicants should consult with the Scientific Research Aid Division of the Research Promotion Bureau of the Ministry of Education, Culture, Sports, Science and Technology (MEXT).

Moreover, if changes in one of the following items have been scheduled, institutions that have received the designation by the Minister of Education, Culture, Sports, Science and Technology (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 Ministry of Education, Culture, Sports, Science and Technology (MEXT).

- A) abolition or dissolution of the research institution,
- B) name and address of the research institution, and name of the representative,
- C) 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)

- A) if a KAKENHI is given, the research activity should be conducted as an activity of the research institution in question,
- B) if a KAKENHI is given, the research institution should carry out the management of KAKENHI.

**(2) Verification of the Eligibility to Apply of the Affiliated Researcher**

Researchers who try to apply for KAKENHI, should meet the requirements 1) and 2) below. Therefore, they should sufficiently verify these requirements with the research institution.

**From FY2014 on, if JSPS Research Fellows (SPD, PD, or RPD) meet the following application requirements in their host research institutions, they can also apply for a part of the research categories other than “Grant-in-Aid for JSPS Fellows”. (Cf. “Table of Restrictions on Duplication”). In this case, the research institution should operate in a way that it recognizes applications where the research period exceeds the employment period as JSPS Research Fellow.**

Moreover, JSPS Research Fellows (DC) and Foreign JSPS Fellows, graduate students or other students cannot apply, even if they hold a position in which they conduct research activities in the research institution to which they belong or in another research institution.

**Researchers who try to apply for KAKENHI, should meet the Eligibility to Apply. (see page 26)**

**1) At the time of the application, a person needs to be recognized by the research institution to which he or she belongs to be a researcher who meets the requirements A), B) and C) below, and needs to be a researcher whose Researcher Information has been registered in e-Rad as “Eligible to Apply for KAKENHI”.**

(Requirements)

- A) **The researcher should belong to the research institution as a person who has *inter alia* the duty to perform research activities within the research institution in question** (irrespective of whether the work is paid or unpaid, full-time or part-time. Moreover, it is not necessary for the researcher to perform these research activities as his or her main duty.)
- B) **The researcher should actually be engaged in research activities at the research institution in question** (this does not apply to cases where he or she is only engaged as a research assistant.)
- C) **The researcher is not a graduate student or any other category of student.** (However, this does not apply to persons who hold a position consisting of conducting research activities in the research institution to which they belong, as their main work (e.g. university teaching staff, researchers from companies, etc.), and those who also have a student status.)

**2) A person should not fall under “Not eligible for receipt of funding” in FY2014, because he or she committed fraudulent use, fraudulent receiving of grants or fraudulent acts of/with KAKENHI or other competitive funding.**

Research grant employees, as a rule, need to concentrate on their employment related work according to their employment contract. Therefore, considering the working hours they need to allot to their employment related work, they cannot apply for KAKENHI themselves.

However, if they provide a clear explanation on the time they can spend besides their employment related work, and if during this time they themselves attempt to conduct research using KAKENHI on their own initiative, it is possible for them to apply for KAKENHI, on condition that the following points have been verified in the research institution. In this case, they can apply as a Principal Investigator, and they can also become Co-Investigators (*kenkyū-buntansha*), Co-Investigators (*renkei-kenkyūsha*), or other project members.

- It has been determined in the employment contract that research grant employees themselves can conduct research on their own initiative, besides their employment related work.
- The employment related work and the work devoted to research that they conduct themselves on their own initiative has clearly been divided in the working hours and the effort.
- Time that can be allotted to research which they attempt to conduct themselves on their own initiative has been secured, besides the time spent for employment related work.

### **(3) Registration of the Researcher Information in e-Rad**

Individuals other than the Principal Investigator who try to apply, being the Co-Investigator(s) (*kenkyū-buntansha*) and the Co-Investigator(s) (*renkei-kenkyūsha*) who make up the Project Members should be individuals of whom the researcher information has been registered in e-Rad as “Eligible to Apply for KAKENHI”.

Regarding the registration (renewal) of the researcher information necessary when applying, the person in charge in the research institution to which the researcher belongs should perform the procedures using e-Rad. (if there is any item, such as the institution, 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, the applicant needs to register the correct information on the researcher list.)

For specifics on the method of registration, the research institution should verify the “Manual for Research Institutions to which the Researchers belong (for Research Institution Office Representatives and for Research Institution Office Workers)”.

Moreover, concerning the registration of the researcher information in e-Rad, there is no registration

period (deadline). Therefore, registration is possible at any time.

Moreover, Since Proposals for Grant-in-Aid will not be accepted after the deadline for submission of application documents, applicants should complete the registration (the renewal) of the researcher information early, in order to have sufficient time to submit (send) 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.

(Reference) On “Grant-in-Aid for Research Activity Start-up”

The “Grant-in-Aid for Research Activity Start-up” is aimed at supporting persons who cannot apply for the call for proposals this time, such as researchers who have just been employed by their research institutions, researchers who return from childcare leave or other kinds of leave, or other researchers.

The FY2014 call for proposals for this research category is scheduled to be issued in March 2014. Eligibility to apply is as follows:

(1) Researchers who did not apply for this grant category because they became eligible to apply for a Grant-in-Aid after the 8 November 2013 deadline for applications under the below-listed (\*) categories, openly solicited by MEXT and JSPS from September 2013.

(2) Researchers who were unable to apply for the below-listed (\*) grant categories openly solicited by MEXT and JSPS in September 2013 because they were on leave for child birth and/or infant raising in FY 2013.

(Applicants should verify the details in the Application Procedures of March 2014.)

The research institution is responsible for conducting the registration of the researcher information and other matters in e-Rad. Therefore, applicants should bear this in mind when registering researcher information that may come to fall under the above-mentioned point 1) or when carrying out other procedures.

(\*) Among the Grants-in-Aid for Scientific Research for FY2014 there are “Scientific Research on Innovative Areas”, “Specially Promoted Research”, “Scientific Research”, “Challenging Exploratory Research” and “Grant-in-Aid for Young Scientists”.

(Note) Even if JSPS Research Fellows (SPD, PD, or RPD) have become eligible in their host research institutions, they cannot apply for “Grant-in-Aid for Research Activity Start-up”.

#### **(4) Verification of the ID and the Password of the Researcher Belonging to the Research Institution**

In order to apply for KAKENHI, researchers should perform the procedures, by accessing the “Electronic Application System”), he or she should retain the ID and the Password for e-Rad.

For this reason, the research institution should verify whether researchers who are scheduling to apply have an ID and a Password, or not.

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

with the following procedure.

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

It takes approximately two weeks for the “ID and Password for use of the research institution” to arrive after registration application the “Application for Use of the Electronic Application System”.

**Note 1** Please refer to “Advance Preparation when Using the System”

(<http://www.e-rad.go.jp/shozoku/system/index.html>) on the e-Rad website for information on downloading the ID and password for e-Rad.

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

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

- 2) After obtaining an ID and a Password for use of the research institution, the people in the research institution should provide this ID and password to the researcher who is planning to apply as a Principal Investigator. The ID and password for each researcher is issued through registration of the researcher information in e-Rad. Please refer to the “Manual for Research Institutions to which the Researchers Belong (for Research Institution Office Representatives and for Research Institution Office Workers, section “2. Researcher Information Management”)” for information on the concrete way how to provide them.

**Note 1** Once the ID and the password for the researcher have been provided they can be used, even if the research institution changes.

**Note 2** Please be sure to obtain and use the latest version of the Operation Manual.

**(5) Submission of a “Self-Assessment Checklist on the Improvement of the System and Other Matters”, based on the “Guidelines on the Management and Audit of Public Research Funds at Research Institutions (Implementation Standards)”**

The Research Institution that is applying for KAKENHI should set up a system for the management and audit of public research funds, based on the “Guidelines on the Management and Audit of Public Research Funds at Research Institutions”, and should report on its state of implementation.

Therefore, the Research Institution (including research institutions which are already engaged in a continued research project funded with a KAKENHI) that is applying for KAKENHI should submit

a “Self-Assessment Checklist on the Improvement of the System and Other Matters”, based on the “Guidelines on the Management and Audit of Public Research Funds at Research Institutions (Implementation Standards)” to the Office of Research Funding Administration of the Promotion Policy Division of the Research Promotion Bureau of the Ministry of Education, Culture, Sports, Science and Technology (MEXT) by **October 4 (Friday), 2013**, using e-Rad. **Please be advised that, in case the report is not submitted, applications of researchers who belong to the research institution in question in the electronic system will not be considered.**

Moreover, if the checklist has already been submitted in April 2013 or later through e-Rad when applying for competitive funding or other kinds of funding that is allotted by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) or by independent administrative legal entities under the control of the Ministry of Education, Culture, Sports, Science and Technology (MEXT), it is not necessary to submit it again.

When using e-Rad, one needs, an ID and a Password for use of the research institution.

With regard to the checklist submission method, checklist forms and other matters using e-Rad, the research institution should verify the text “Concerning the Form Files ‘Self-Assessment Checklist on the Improvement of the System and Other Matters’, based on the ‘Guidelines on the Management and Audit of Public Research Funds at Research Institutions (Implementation Standards)’” on the webpage of the Ministry of Education, Culture, Sports, Science and Technology (MEXT) ([http://www.mext.go.jp/a\\_menu/kansa/houkoku/1301688.htm](http://www.mext.go.jp/a_menu/kansa/houkoku/1301688.htm)).

Moreover, the Office of Research Funding Administration of the Promotion Policy Division of the Research Promotion Bureau of the Ministry of Education, Culture, Sports, Science and Technology (MEXT) separately sent a notification by e-mail addressed to each research institution on July 11, 2013 (i.e. to the e-mail address of the office representative that has been registered in e-Rad) concerning the submission method of the checklist using e-Rad, forms and other matters. (This notification has also been put on the web page for inquiries as mentioned below.)

Note: After submission of the check list, the research institution may be requested to cooperate in field surveys on the state of the improvement of the system and other matters, conducted by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) (including institutions allocating grants), if the need arises.

**Please direct inquiries to:**

**(for inquiries concerning forms of the guidelines and submission)**

Office of Research Funding Administration

Promotion Policy Division  
Research Promotion Bureau  
Ministry of Education, Culture, Sports, Science and Technology (MEXT)  
e-mail: kenkyuhi@mext.go.jp  
URL: [http://www.mext.go.jp/a\\_menu/kansa/houkoku/1301688.htm](http://www.mext.go.jp/a_menu/kansa/houkoku/1301688.htm)

**(for inquiries concerning the registration of the research institution in e-Rad)**

Helpdesk of the Cross-ministerial Research and Development management system of the Ministry of Education, Culture, Sports, Science and Technology (MEXT)

Tel. 0120-066-877

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

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

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

Every day of the week, from 0:00 until 24:00 (in operation 24 hours a day, 365 days a year)

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

**(6) On the Submission of the Report on the Research Achievements**

The research institution to which researchers belong has to collect and submit the reports on the research achievements. If the research institution has failed, without good reason, to submit the reports on the research achievements at the end of the research, 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 funded to researchers who do not submit the report on the research achievements at the end of the research, without good reason. Moreover, it may happen that the decision to grant KAKENHI to the researcher in question is cancelled, or that an order to return the grant is issued. It may also happen that information, such as the name of the research institution to which the researcher in question belongs and other data, is made public.

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

**(7) 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 application documents, in order to avoid potential misunderstandings.

Moreover, the Application Procedures are available on the section Grants-in-Aid for Scientific Research of the JSPS website (<http://www.jsps.go.jp/j-grantsinaid/index.html>). The website should be used as a reference.

## **2. Issues that Need to Be Verified When Compiling the Application Forms (Preparing the Proposal for Grant-in-Aid)**

The contents of the Proposals for Grant-in-Aid should be verified in each research institution, and all the Proposals for Grant-in-Aid should be submitted to JSPS together. When doing so, special attention should be paid to the following points.

### **(1) Verification of the Eligibility to Apply**

It should be verified whether the Principal Investigator, the Co-Investigator(s) (*kenkyū-buntansha*) and the Co-Investigator(s) (*renkei-kenkyūsha*) listed in the Proposal for Grant-in-Aid are persons who meet the requirements that are stipulated in the Application Procedures (see page 25), and also whether the researcher information is registered in e-Rad as “Eligible to Apply for KAKENHI”.

Moreover, on this occasion, it should certainly be verified whether the researchers who apply are not persons who have been excluded from receiving KAKENHI, due to an inappropriate use of KAKENHI.

### **(2) Verification of the Registration of the Researcher Information in e-Rad**

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

Moreover, if there is any item, such as the institution, 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, the applicant needs to register the correct information on the researcher list. Therefore, this should be verified.

### **(3) Verification of the Principal Investigator**

The research institution should verify whether the Principal Investigator, the Co-Investigator(s) (*kenkyū-buntansha*), the Co-Investigator(s) (*renkei-kenkyūsha*) who have been listed in the the

Proposal for Grant-in-Aid prepared the Proposal for Grant-in-Aid, after verifying the section “II. Details of the Call for Proposals”, which are laid down in the Application Procedures.

**(4) Verification of the Written Consent of the Co-Investigator (*kenkyū-buntansha*)**

For each Co-Investigator (*kenkyū-buntansha*) who has been listed on the Proposal for Grant-in-Aid, that the Principal Investigator prepared, the research institution should check the Written Consent of the Co-Investigator (*kenkyū-buntansha*) that the Principal Investigator collected.

**(5) Verification of the Application Forms**

Applicants should verify whether the application forms for grants-in-aid are in conformity with the prescribed format.

Moreover, the format and other matters of the application forms for each research category are as follows.

Research category	Proposal for Grant-in-Aid	
	First part	Second part
	Application information (to be entered in the website)	Project Description File
Specially Promoted Research (New) (English Version)	To be entered in the electronic application system	S-1-1 (1)
Specially Promoted Research (New) (Japanese Version)		S-1-1 (2)
Specially Promoted Research (Continued)		S-1-2
Scientific Research (S)		S-1-6
Scientific Research (A) Research related to the screening panel for “General”		S-1-7
Research related to the screening panel for “Overseas Academic Research”		S-1-9
Scientific Research (B) Research related to the screening panel for “General”		S-1-7
Research related to the screening panel for “Overseas Academic Research”		S-1-9
Research related to the screening panel for “Generative Research Fields”		T-1-1
Scientific Research (C) Research related to the screening panel for “General”		S-1-8
Research related to the screening panel for “Generative Research Fields”		T-1-2
Challenging Exploratory Research		S-1-10
Grant-in-Aid for Young Scientists (A)		S-1-12
Grant-in-Aid for Young Scientists (B)		S-1-13

Continued Research Project (in the case of a major change in the research project)		S-1-14
--	--	--------

### **3. Submission and other matters of the Application Forms (Preparing the Proposal for Grant-in-Aid) Outline of the Electronic Application Procedures**

- (1) The research institution should access the “Electronic Application System”, using the ID and the password for e-Rad, obtain the information of the Proposals for Grant-in-Aid (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 proposals for grant-in-aid (PDF files) that have no mistakes in their contents. (It should submit (send) the proposals for grant-in-aid (PDF files) to JSPS.) Moreover, it is not possible to make corrections or other modifications to the Proposal for Grant-in-Aid (PDF file) of each planned research for which the research institution has already performed the “approval” process.

The deadline for the submission (sending) of the proposals for grant-in-aid is:

**November 8 (Friday), 2013, 4:30 pm** (This deadline should be observed strictly.)

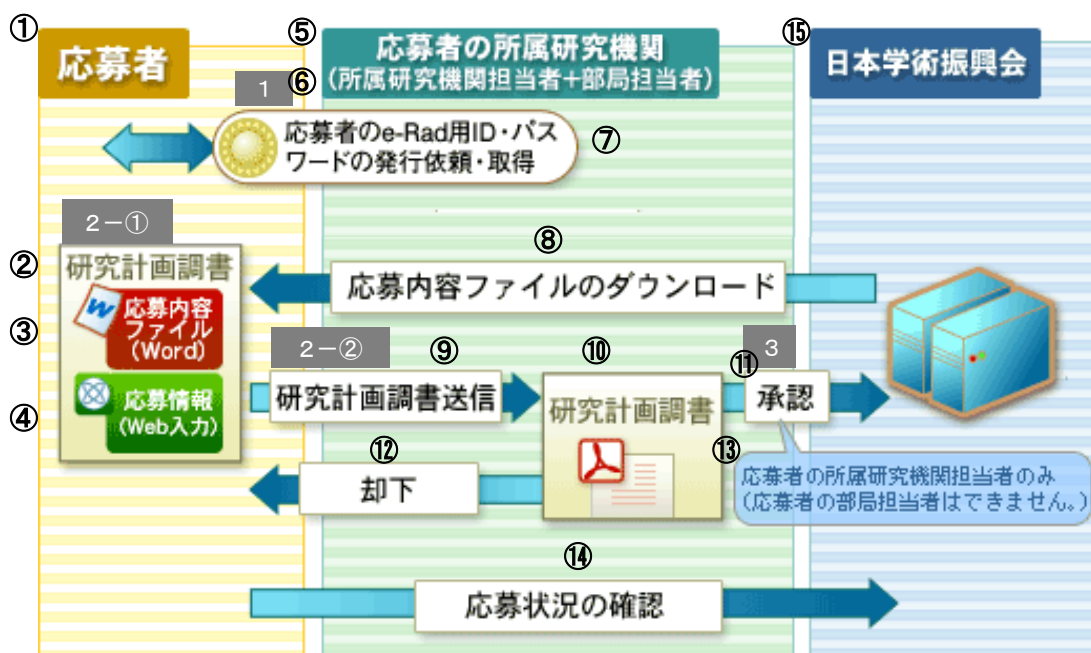
**Note 1** Application documents that are submitted (sent) after this deadline will not be accepted. Therefore, the documents should be submitted (sent) well in advance.

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

- (3) The ID and the password which are used in the e-Rad are designed to verify the individual. Therefore, the handling and administration of them should be done carefully when carrying out the application procedures.

Moreover, an outline of the procedures for electronic application can be found below. However, for details on the “Electronic Application System”, please refer to the “Operation Manual”.

## Outline of the Electronic Application Procedures



- ② applicant
- ② Proposal for Grant-in-Aid
- ③ Project Description File (Word)
- ④ application information (to be entered in the website)
- ⑤ the research institution to which the applicant belongs
- ⑥ person in charge in the research institution + person in charge in the department
- ⑦ request for issue and acquisition of the applicant's ID and password for e-Rad
- ⑧ downloading of the Project Description File
- ⑨ sending the Proposal for Grant-in-Aid
- ⑩ Proposal for Grant-in-Aid
- ⑪ approval
- ⑫ rejection
- ⑬ only the person in charge of the research institution to which the applicant belongs (The person in charge of the department of the applicant cannot make an approval.)
- ⑭ confirmation of the state of the application
- ⑮ the Japan Society for the Promotion of Science (JSPS)

### The person in charge of the research institution to which the applicant (Principal Investigator) belongs

- 1 The person in charge of 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 or she received, and prepares the Proposal for Grant-in-Aid (PDF file), by entering the application information (to be entered in the website) and by uploading the Project Description File (items in the attached file).

- 2-(2) If there are no mistakes in the Proposal for Grant-in-Aid (PDF file) the applicant prepared, he or she should submit (send) the Proposal for Grant-in-Aid (PDF file) to the person in charge of the research institution to which he or she belongs, by performing the “completed and submission” process.

**The person in charge of the research institution to which the applicant (Principal Investigator) belongs**

- 3 By approving the Proposal for Grant-in-Aid (PDF file) the person in charge of the research institution to which the applicant belongs submits (sends) it to JSPS.

Moreover, if the Proposal for Grant-in-Aid (PDF file) that the applicant submitted is not approved due to mistakes or other reasons, it will be rejected and the applicant will be requested to make corrections.

## **(Reference 1) Screening Panels and Other Matters**

### **1. Screening Methods, and Other Matters**

The screening for KAKENHI is carried out by the Scientific Research Grant Committee of the Japan Society for the Promotion of Science (JSPS), and it is based on the application documents (Proposal for grant-in-aid).

The screening takes place behind closed doors. The submitted application documents are not returned to the applicants.

The “assessment rules” (Rules concerning the screening and assessment for Grants-in-Aid for Scientific Research, called “screening and assessment rules” below) are available on the section Grants-in-Aid for Scientific Research of the JSPS website

(<http://www.jsps.go.jp/j-grantsinaid/index.html>).

(The “screening and assessment rules” for FY2013 will be posted on the JSPS website around early October.)

### **2. Notification of the Screening Results**

#### **(1) Specially Promoted Research**

- 1) JSPS will issue a notification in writing on the results of the selection of the research projects for which an interview will be organized. (This is scheduled for March)
- 2) The Ministry of Education, Culture, Sports, Science and Technology (MEXT) will issue a notification in writing to the research institution on whether the research project has been selected or not, based on the results of the screening. (This is scheduled for early April.)
- 3) JSPS will issue a notification containing the opinions expressed in the screening results and a summary of the state of the screening to the Principal Investigator of the research project that has been selected. JSPS is also planning to make an outline of the opinions expressed in the screening results available to the general public. Moreover, to Principal Investigators who have not been selected a notification containing the approximate ranking among the research projects that have been screened, in addition to the opinions expressed in the screening results and a summary of the state of the screening, is planned to be issued.

#### **(2) Research Categories Other than Specially Promoted Research**

- 1) The results of the selection based on interviews on the proposed project for “Scientific Research (S)” will be notified to the research institution in writing (planned for March).



- 2) The results of the examination performed by the screening panels will be notified to the research institution in writing (planned for early April. for “Scientific Research (A/B/C) screening division “General” and “Overseas Academic Research” ”, “Challenging Exploratory Research”, “Grant-in-Aid for Young Scientists (A/B)”, and for late May for “Scientific Research (S)” and “Grant-in-Aid for Young Scientists (S)” and for late July for “Scientific Research (B/C) screening division “Generative Research Fields” ”).
- 3) If researchers who applied for “Scientific Research”, “Challenging Exploratory Research” or “Grant-in-Aid for Young Scientists (A/B)”, and whose applications have not been accepted, wish to have the results of the first stage of the screening disclosed (document-based screening), the approximate ranking per research field (area) and the score (average score) and the “standard-format opinion” given by the judges of the screening committee for each element which is taken into account when rating will be disclosed through the electronic application system.

**(Reference 2) Procedures on the Handling of Grants-in-Aid for Scientific Research(pre)**

**(Reference 3) Procedures on the Handling of JSPS Grants-in-Aid for Scientific Research (KAKENHI (Series of Single-year Grants))(pre)**

**(Reference 4) Procedures on the Handling of JSPS Grants-in-Aid for Scientific Research (KAKENHI (Multi-year Fund))(pre)**

# (Reference 5) State of Allocation of Grants-in-Aid for Scientific Research for FY2013 and Other Matters

## 1. State of Allocation of Grants-in-Aid for Scientific Research for FY2013

### (1) New Projects

As of April 2013

Research category	Number of proposed projects			Amount allocated	Amount allocated per project	
	Applications	Applications approved	Approval rate		Average	Maximum
<b>Grants-in-aid for Scientific Research</b>	# 〔 86,874 〕 91,626	# 〔 24,673 〕 25,151	% 〔 28.4 〕 27.4	(1,000 yen) 〔 56,640,420 〕 55,977,606 【 16,686,450 〕	(1,000 yen) 〔 2,296 〕 2,226	(1,000 yen) 〔 34,400 〕 28,800
Scientific Research on Priority Areas(*1)	〔 9 〕 2	〔 9 〕 2	〔 - 〕 -	〔 25,400 〕 5,952	〔 2,822 〕 2,976	〔 3,000 〕 3,000
Scientific Research on Innovative Areas(*2) (Research in a proposed research area)	〔 2,822 〕 5,398	〔 712 〕 1,191	〔 25.2 〕 22.1	〔 2,596,900 〕 3,885,300 【 1,165,590 〕	〔 3,647 〕 3,262	〔 10,000 〕 9,000
Scientific Research (A)	〔 2,251 〕 2,300	〔 535 〕 541	〔 23.8 〕 23.5	〔 6,985,500 〕 6,787,100 【 2,036,130 〕	〔 13,057 〕 12,545	〔 34,400 〕 28,800
Scientific Research (B)(*3)	〔 9,875 〕 10,205	〔 2,440 〕 2,523	〔 24.7 〕 24.7	〔 13,200,800 〕 13,400,400 【 4,020,120 〕	〔 5,410 〕 5,311	〔 13,300 〕 13,800
Scientific Research (C)(*4)	〔 32,899 〕 33,871	〔 9,857 〕 10,127	〔 30.0 〕 29.9	〔 15,332,520 〕 14,669,300 【 4,400,790 〕	〔 1,555 〕 1,449	〔 3,800 〕 3,700
Challenging Exploratory Research(*4)	〔 12,559 〕 13,865	〔 3,759 〕 3,582	〔 29.9 〕 25.8	〔 5,692,800 〕 5,426,100 【 1,627,830 〕	〔 1,514 〕 1,515	〔 3,100 〕 3,200
Young Scientists (A)(*3)	〔 1,796 〕 1,779	〔 399 〕 394	〔 22.2 〕 22.1	〔 3,243,100 〕 3,054,500 【 916,350 〕	〔 8,128 〕 7,753	〔 19,700 〕 19,200
Young Scientists (B)(*4)	〔 20,867 〕 20,330	〔 6,255 〕 6,079	〔 30.0 〕 29.9	〔 9,213,500 〕 8,398,800 【 2,519,640 〕	〔 1,473 〕 1,382	〔 3,400 〕 3,300
Encouragement of Scientists	〔 3,796 〕 3,876	〔 707 〕 712	〔 18.6 〕 18.4	〔 349,900 〕 350,154	〔 495 〕 492	〔 800 〕 800
<b>Publication of Scientific Research Results(*5)</b>	〔 961 〕 1,031	〔 491 〕 437	〔 51.1 〕 42.4	〔 1,029,060 〕 939,600	〔 2,096 〕 2,150	〔 20,000 〕 12,700
<b>Total</b>	〔 87,835 〕 92,657	〔 25,164 〕 25,588	〔 28.6 〕 27.6	〔 57,669,480 〕 56,917,206 【 16,686,450 〕	〔 2,292 〕 2,224	〔 34,400 〕 28,800

#### Notes:

- The figures in [ ] indicate the previous fiscal year.
- The figures in 【 】 indicate indirect costs (excluded from the total).
- (\*1) No call issued in FY 2013 for projects in new or continuing areas. The only call issued is for projects that collate the results of research areas set to have ended in FY 2012.
- (\*2) Only new projects of continued area have been accounted for.
- (\*3) As a portion of these grants is covered under the multi-year Fund, the columns "Amount allocated" and "Amount allocated per project" are calculated based on the projects' initial plans for FY 2013.
- (\*4) As these grants are covered under the multi-year Fund, the columns "Amount allocated" and "Amount allocated per project" are calculated based on the projects' initial plans for FY 2013.
- (\*5) As applications under the categories "Strengthening International Dissemination of Information (A)" and "Open-Access Publication Support" are currently being screened, these categories are not included within this amount, which covers only the categories "Publishing Scientific Research Results," "Strengthening International Dissemination of Information (B)," "Scientific Periodicals," "Scientific Literature," and "Databases."
- "Grant-in-Aid for Special Purposes" and "Special Grant-in-Aid for Encouragement of Scientists" are excluded.

## (2) Newly approved and continued

As of April 2013

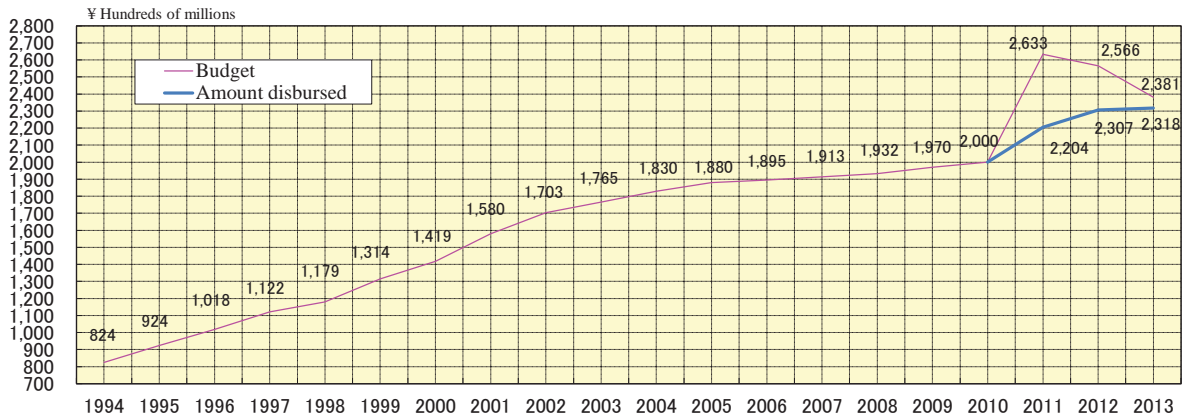
Research category	Number of proposed projects			Amount allocated	Amount allocated per project	
	Applications	Applications approved	Approval rate		Average	Maximum
<b>Grants-in-aid for Scientific Research</b>	[ 130,324 ] 137,141	[ 67,961 ] 70,551	[ 52.1 ] 51.4	(1,000 yen) 155,012,892 156,964,950 【 46,982,653 】	(1,000 yen) 2,281 2,225	(1,000 yen) 159,200 165,000
Specially Promoted Research(*1)	[ 59 ] 58	[ 59 ] 58	[ - ] -	4,571,600 4,175,700 【 1,252,710 】	77,485 71,995	159,200 165,000
Scientific Research on Priority Areas	[ 117 ] 2	[ 117 ] 2	[ - ] -	882,500 5,952	7,543 2,976	42,000 3,000
Scientific Research on Innovative Areas(*2) (Research in a proposed research area)	[ 4,842 ] 6,984	[ 2,732 ] 2,775	[ 56.4 ] 39.7	21,045,350 21,127,434 【 6,338,230 】	7,703 7,613	135,400 124,000
Scientific Research on Innovative Areas(*3) (Research under a proposed research project)	[ 1 ] -	[ 1 ] -	[ - ] -	3,869 - 【 - 】	3,869 -	3,869 -
Scientific Research (S)(*1)	[ 348 ] 352	[ 348 ] 348	[ - ] -	9,229,300 9,481,300 【 2,844,390 】	26,521 27,245	87,900 73,900
Scientific Research (A)	[ 3,784 ] 3,900	[ 2,054 ] 2,127	[ 54.3 ] 54.5	18,888,800 19,041,512 【 5,712,454 】	9,196 8,952	34,400 28,800
Scientific Research (B)(*4)	[ 15,837 ] 16,091	[ 8,358 ] 8,378	[ 52.8 ] 52.1	32,515,800 32,543,900 【 9,763,170 】	3,890 3,884	13,300 13,800
Scientific Research (C)(*5)	[ 51,301 ] 54,147	[ 28,211 ] 30,377	[ 55.0 ] 56.1	31,815,351 34,848,524 【 10,454,557 】	1,128 1,147	3,800 3,800
Challenging Exploratory Research(*5)	[ 16,541 ] 18,593	[ 7,735 ] 8,309	[ 46.8 ] 44.7	9,476,700 10,064,900 【 3,019,470 】	1,225 1,211	3,100 3,200
Young Scientists (S)(*3)	[ 50 ] 23	[ 47 ] 20	[ 94.0 ] 87.0	540,100 224,900 【 67,470 】	11,491 11,245	19,000 15,800
Young Scientists (A)(*4)	[ 2,646 ] 2,715	[ 1,244 ] 1,325	[ 47.0 ] 48.8	6,921,164 6,908,550 【 2,072,565 】	5,564 5,214	19,700 19,200
Young Scientists (B)(*5)	[ 30,211 ] 29,569	[ 15,557 ] 15,289	[ 51.5 ] 51.7	17,942,303 17,355,636 【 5,206,691 】	1,153 1,135	3,400 3,300
Research Activity Start-up(*1)	[ 791 ] 831	[ 791 ] 831	[ - ] -	830,155 836,488 【 250,946 】	1,050 1,007	1,500 1,500
Encouragement of Scientists	[ 3,796 ] 3,876	[ 707 ] 712	[ 18.6 ] 18.4	349,900 350,154	495 492	800 800
<b>Publication of Scientific Research Results(*6)</b>	[ 1,006 ] 1,082	[ 536 ] 488	[ 53.3 ] 45.1	1,166,960 1,108,000	2,177 2,270	20,000 16,400
<b>Total</b>	[ 131,330 ] 138,223	[ 68,497 ] 71,039	[ 52.2 ] 51.4	156,179,852 158,072,950 【 46,982,653 】	2,280 2,225	159,200 165,000

## Notes:

- This chart combines the figures for newly selected and continuing projects.
- The figures in [ ] indicate the previous fiscal year.
- The figures in 【 】 indicate indirect costs (excluded from the total).
- (\*1) Only continued projects have been accounted for.
- (\*2) Only new projects and continued projects of continued area have been accounted for.
- (\*3) No new projects are recruited in FY 2013.
- (\*4) Among these projects, there are new project that are partially covered under the multi-year Fund; their columns "Amount allocated" and "Amount allocated per project" are calculated based on the projects' initial plans for FY 2013.
- (\*5) Among these projects, there are new project covered under the multi-year Fund; their columns "Amount allocated" and "Amount allocated per project" are calculated based on the projects' initial plans for FY 2013.
- (\*6) As applications under the categories "Strengthening International Dissemination of Information (A)" and "Open-Access Publication Support" are currently being screened, these categories are not included within this amount, which covers only the categories "Publishing Scientific Research Results," "Strengthening International Dissemination of Information (B)," "Scientific Periodicals," "Scientific Literature," and "Databases."
- "Scientific Research on Innovative Areas (Research in a proposed research area) 'Support Activity in 3 Areas of Bioscience'", "Grant-in-Aid for Special Purposes" and "Special Grant-in-Aid for Encouragement of Scientists" are excluded.

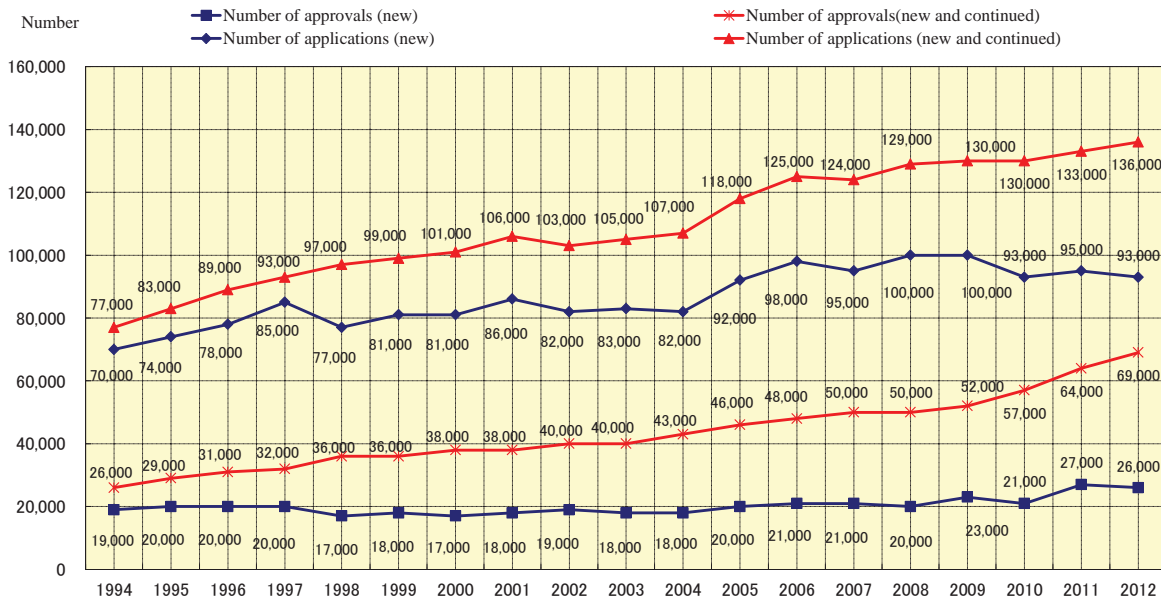
## 2. Changes in Budgets and Other Information

### ○ Changes in budgets and other information



FY	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Budget (¥ hundreds of millions)	824	924	1,018	1,122	1,179	1,314	1,419	1,580	1,703	1,765	1,830	1,880	1,895	1,913	1,932	1,970	2,000	2,633	2,566	2,381
Year-on-year increase (%)	12.0	12.1	10.2	10.2	5.1	11.5	8.0	11.3	7.8	3.6	3.7	2.7	0.8	0.9	1.0	2.0	1.5	31.7	-2.5	-7.2
Amount disbursed (¥ hundreds of millions)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,204	2,307	2,318
Year-on-year increase (%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.7	0.5

### ○ State of applications and approvals



### ○ Approval rate

(Upper column: New projects, Lower column: New and continuing projects)

FY	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Approval rate (%)	27.0	27.6	26.1	24.6	22.2	21.8	21.6	21.1	22.7	21.4	22.5	21.6	21.5	22.2	20.3	22.5	22.1	28.1	27.9
Approval rate (%)	33.8	35.2	35.1	34.0	37.6	36.1	37.3	35.8	38.5	37.9	40.7	38.6	38.6	40.4	38.4	40.3	44.2	48.4	50.8

## Inquiries

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

#### (1) About the invitation of applications:

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

Phone: 03-3263-4682, 4798, 1878,0964,4764,4796

#### **KAKENHI (Series of Single-year Grants): Specially Promoted Research, Scientific research(S), Grant-in-Aid for Young Scientists (S)**

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

Phone: 03-3263-4254 (Specially Promoted Research)  
03-3263-4388 (Scientific Research (S) , Grant-in-Aid for Young Scientists (S))

#### **KAKENHI (Series of Single-year Grants): Scientific research (A), all research projects, Scientific research (B), Grant-in-Aid for Young Scientists (A) projects adopted in FY2011 or before, Scientific research (C), Challenging Exploratory Research, Grant-in-Aid for Young Scientists (B) projects adopted in FY2010 or before**

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

Phone: 03-3263-1870, 4779,4758,0996,4724

#### **KAKENHI (Multi-year Fund): Scientific research (C), Challenging Exploratory Research, Grant-in-Aid for Young Scientists (B) projects adopted from FY2011 onward**

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

Phone: 03-3263-1057, 1843,1845,1867,0992

#### **KAKENHI (Partial Multi-year Fund): Scientific research (B), Grant-in-Aid for Young Scientists (A) projects adopted from FY2012 onward**

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

Phone: 03-3263-4758, 4779,0996,4724,1870

#### (2) For inquiries concerning the use of the JSPS electronic application system for projects funded by grants-in-aid for scientific research:

**Call center:** 0120-556-739 (toll-free)

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

**The following phone numbers are also available:** 03-3263-1902, 1913  
System Management Team, Policy Planning, Information and Systems Division,  
Administration Department, Japan Society for the Promotion of Science

**(3) For inquiries concerning the use of the Cross-ministerial Research and Development management system (e-Rad):**

**e-Rad help desk:** 0120-066-877 (toll-free)

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

\* The following phone numbers are also available: 03-3455-8920

**(4) For matters related to the “Self-Assessment Checklist on the Improvement of the System and Other Matters”, based on the “Guidelines on the Management and Audit of Public Research Funds at Research Institutions (Implementation Standards)”:**

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

Phone: 03-6734-4014

**(5) For matters related to “the Life Science Database”:**

National Bioscience Database Center, Japan Science and Technology Agency (JST)

Phone: 03-5214-5491

**(6) For matters related to the “Inter-University Bio-Backup Project”**

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

Tel.0564-59-5930, 5931

**2. The application guidelines can be viewed on the JSPS website.  
Application forms can be downloaded from the following website.**

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

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

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