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

FY2012

KAKENHI (Series of Single-year Grants)

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

KAKENHI (Multi-year Fund)

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

September 1, 2011

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 FY2012 “Specially Promoted Research, Scientific Research, 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 falls before the budgetary request for FY2012. However, JSPS has opened the current round 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 total budget, the details and other matters may change at a later stage.

Moreover, the major changes for FY2012 are as follows.

＜The major changes for FY2012＞

①There has been an institutional reform entailing the adoption of a new funding mechanism and a part of the KAKENHI research categories is now provided from that fund.

From FY2011 on, for a part of the KAKENHI research categories, the “KAKENHI (Multi-year Fund)” has been established within JSPS. This “KAKENHI (Multi-year Fund)” is funded with subsidies provided by the Ministry of Education, Culture, Sports, Science and Technology(MEXT). In this way, an institutional reform entailing the “establishment of a fund system” in order to promote KAKENHI has started.

From now on, a call for proposals will be conducted for “Grants-in-Aid for Scientific Research-KAKENHI-”, which is an umbrella term for the hitherto known “KAKENHI (Series of Single-year Grants)” and “KAKENHI(Multi-year Fund)”.

Moreover, due to the “establishment of a fund system”, the spending rules and the receipt of funding will change. For example, the use of KAKENHI extending over more than one fiscal year will become possible. However, the previous purpose and character of the “KAKENHI” does not change and the details of the call for proposals (i.e. eligibility, total budget provided, research period and other matters) will not change either.

Furthermore, the research categories for which the current round of call for proposals is organized will be handled as in the following table. Please note that the handling of KAKENHI (Series of Single-year Grants) and KAKENHI(Multi-year Fund) will be treated separately in the current text.

Table of Research Categories for the Current Round of Call for Proposals (Series of Single-year Grants and Multi-year Fund)

Research Category	KAKENHI (Series of Single-year Grants)	KAKENHI (Multi-year Fund)
Specially Promoted Research	All research projects (New and continued research projects)	
Scientific Research (S/A/B)	All research projects (New and continued research projects)	

Scientific Research (C)	Research projects adopted in FY2010 or before (Continued)	・Research projects adopted in FY2011 (Continued) ・The current round of call for proposals (New)
Challenging Exploratory Research	Research projects adopted in FY2010 or before (Continued)	・Research projects adopted in FY2011 (Continued) ・The current round of call for proposals (New)
Grant-in-Aid for Young Scientists (A)	All research projects (New and continued research projects)	
Grant-in-Aid for Young Scientists (B)	Research projects adopted in FY2010 or before(Continued)	・Research projects adopted in FY2011 (Continued) ・The current round of call for proposals (New)

② The handing of the total budget under application for Specially Promoted Research has been clarified.

In order to clarify that it is also possible to apply for research plans for which no large amounts of research funding are needed like, for example, research projects in the categories or areas of humanities or social sciences, a part of the details mentioned in the text concerning Specially Promoted Research, for which no upper and lower limits for the total budget under application have been set up, have changed.

③ Special exceptions for restrictions on duplicate applications of Principal Investigators who have been affected by the Great Japan Earthquake are established.

If Principal Investigators of research projects for which the research period continues beyond FY2012 (continued research projects) wish to modify the research plan of their continued research projects, due to the effects of the Great East Japan Earthquake, special exceptions may be granted in order to enable them to apply for new research projects.

④ The "List of Categories, Areas, Disciplines and Research Fields" has been partially changed

After deliberations in the Research Grant Screening Section of the Section Meeting for Science of the Academic Deliberation Council for Science and Technology, the list has changed as indicated below.

○ Area "New multidisciplinary fields"

・The discipline "Quantum Beam Science" and the research field "Quantum Beam Science" have been added.

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      Scientific Research (C): KAKENHI (Multi-year Fund)
   4) Challenging Exploratory Research: KAKENHI (Multi-year Fund)
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Supplementary Volume

Application Procedures for Grants-in-Aid for Scientific Research-KAKENHI- **for FY2012 (Specially Promoted Research, Scientific Research, 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/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

Form S-1-1 (1): Proposal for grant-in-aid “Specially Promoted Research” (new / English version)
Form S-1-1 (2): Proposal for grant-in-aid “Specially Promoted Research” (new / Japanese version)
Form S-1-2: Proposal for grant-in-aid “Specially Promoted Research” (continued)

(2) Research categories other than Specially Promoted Research

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Application information (Items to be filled in on the form on the website) (Scientific Research, Challenging Exploratory Research and Grant-in-Aid for Young Scientists (A/B))
Preparation and data entry of application information
Application information (Items to be filled in on the form on the website) (screenshot)

Second Half, Files with Project Description (procedures for preparation and data entry of proposal for grant-in-aid, and form for proposal for grant-in-aid)

Form S-1-6: Proposal for grant-in-aid “Scientific Research (S)” (new)
Form S-1-7: Proposal for grant-in-aid “Scientific Research (A/B) (General)” (new)
Form S-1-8: Proposal for grant-in-aid “Scientific Research (C) (General)” (new)

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

Form S-1-10: Proposal for grant-in-aid “Challenging Exploratory Research” (new)

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

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

KAKENHI (Series of Single-year Grants)

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Form C-12: Written consent of the Co-Investigator (*kenkyū-buntansha*) (for same institution)

KAKENHI (Multi-year Fund)

Form F-11: Written consent of the Co-Investigator (*kenkyū-buntansha*) (for other institution)

Form F-12: 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 FY2011

KAKENHI (Multi-year Fund)

Form U-1-2: Notice of Completion of Project Funded for FY2011

KAKENHI (Series of Single-year Grants)

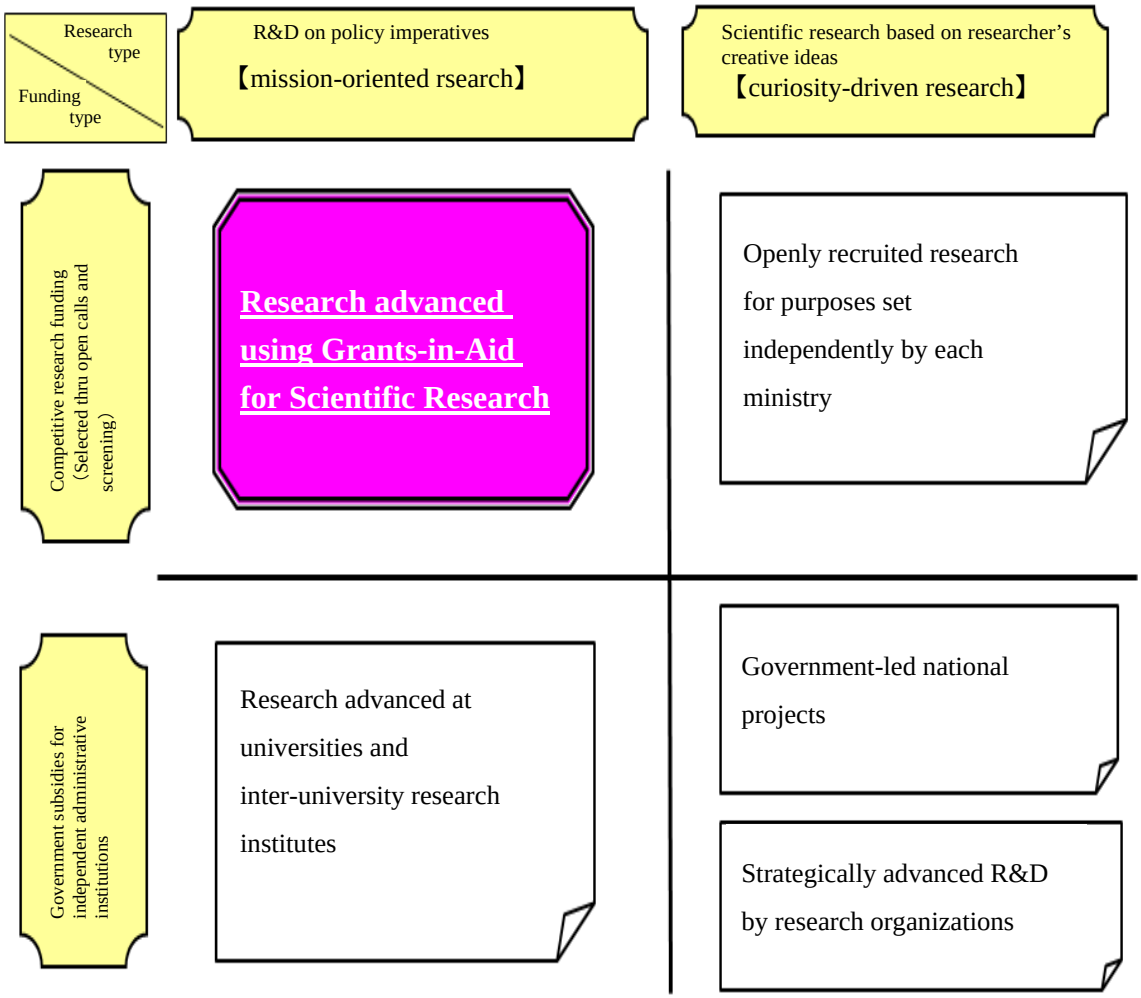
Form U-2: Report on the State of Affairs Regarding the Effects of the Great East Japan Earthquake

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

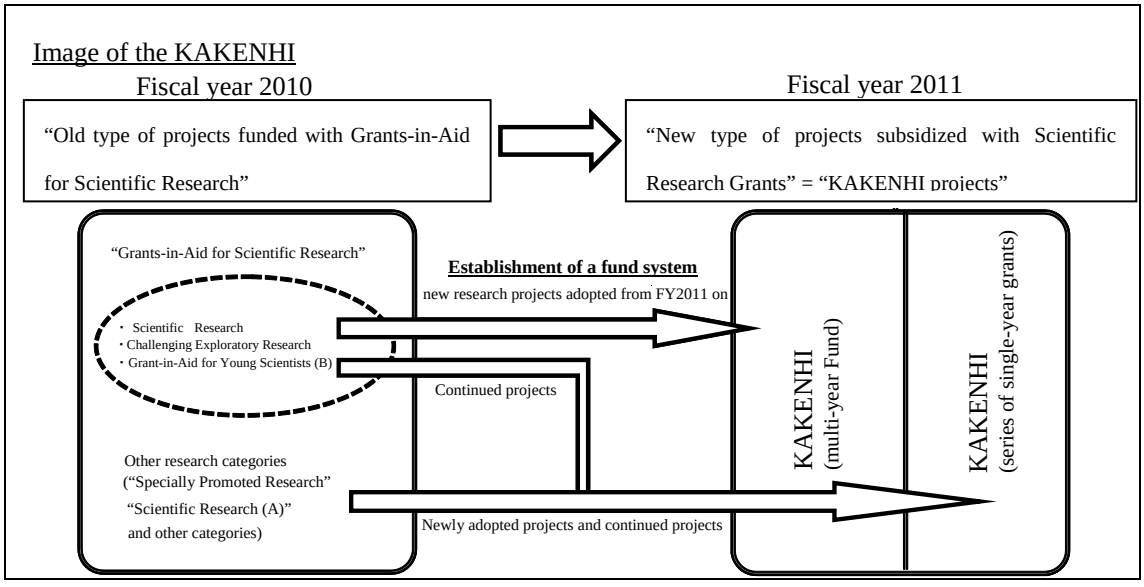


❖ KAKENHI (263.3 billion yen) account for about 58% of the entire budget for competitive funding (approximately 451.4 billion yen).

2. On the Establishment of a Fund System for a Part of the KAKENHI

From FY2011 on, for a part of the KAKENHI research categories, the "KAKENHI Multi-year Fund" has been established by JSPS. This "KAKENHI Multi-year Fund" is funded with subsidies provided by the Ministry of Education, Culture, Sports, Science and Technology (MEXT). In this way, an institutional reform entailing the "establishment of a fund system" in order to promote KAKENHI Multi-year Fund Scientific Research Grants has started. For the research categories for which JSPS organizes a call for proposals, this new system applies for newly adopted research project of the categories "Scientific Research (C)", "Challenging Exploratory Research" and "Grant-in-Aid for Young Scientists (B)".

Moreover, "Multi-year Fund Scientific Research Grants" (hereinafter called "KAKENHI (Multi-year Fund)") and the hitherto known "Grants-in-Aid for Scientific Research" (hereinafter called "KAKENHI (Series of Single-year Grants)") will be implemented together as "Grants-in-Aid for Scientific Research". All these grants will be called "KAKENHI". As for these new "KAKENHI", the previous purpose and character of the old type of "Grants-in-Aid for Scientific Research" does not change.



Through the establishment of a fund system, it becomes possible after the adoption of the research project to use KAKENHI ahead of schedule by modifying the original research plan, or to use the KAKENHI in the subsequent fiscal year without prior procedures, depending on the progress of the research. Moreover, when implementing the research budget, it becomes possible to procure goods across fiscal years.

3. 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 (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 Priority Areas	Research fields that will lead to the upgrading and enhancement of scientific research in Japan; research fields that require effort on a global scale; and/or research fields that have particularly strong social demand will be specified. The objective is to flexibly and effectively plan the promotion of research. (The period is three to six year. In principle, the budget is set at around 20 million to 600 million yen per fiscal year per field.)
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.) (Research a proposed research project) Innovative and challenging research that is very likely to lead to a breakthrough in academic research by the development of the research project in question. The funding is not restricted to research projects that are expected to yield certain and tangible research achievements. (The period is three years. The budget is 10 million yen per fiscal year.)
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.) (Classified in A, B or C, depending on the total budget provided) (A) From 20 million to 50 million yen (B) From 5 million yen to 20 million yen (C) 5 million yen or less
Challenging Exploratory Research	Early-stage research 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
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
	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)
Grant-in-Aid for Creative Scientific Research		Among research supported by Grants-in-Aid for Scientific Research and others, focus is placed on the most outstanding research field. Research projects that are especially important in promoting the research field in question are selected to promote highly creative scientific research (recommendation required; for a period of five years)

❖ The underlined research categories are funded with KAKENHI (Multi-year Fund) when adopted as new research projects from FY2011 on.

4. 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 FY2011 a transfer of "Specially Promoted Research" and "Grants-in-Aid for Young Scientists (A/B)" was conducted, and the call for proposals, screening and funding are currently being conducted as indicated below.

Research category	**Call for proposals, screening and funding** Main body in the preparation of the procedures for lodging applications and the location where the applications should be submitted. Main body handling the criteria for selection, notice of the decision, and the location where the application forms for grants and the various other necessary documents should be submitted
Scientific Research on Priority Areas, Scientific Research on Innovative Areas, Grant-in-Aid for Special Purposes, Grant-in-Aid for Publication of Scientific Research Results (Publication of Scientific Research Results (B/C))	MEXT

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 (Scientific Periodicals, Scientific Literature and Databases), Grant-in-Aid for JSPS Fellows, Grant-in-Aid for Creative Scientific Research	JSPS

❖ As of September 2011

5. 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) (hereinafter called: "Optimization Law"), Procedures on the Handling of Grants-in-Aid for Scientific Research (Announcement of the MEXT), KAKENHI (Series of Single-year Grants) Management Procedures of the Japan Society for the Promotion of Science (Regulations No. 17, 2003), and Others.

The KAKENHI (Multi-year Fund) are governed by the "Optimization Law", the "Basic Policy on the Management of the KAKENHI (Multi-year Fund)", the "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) Spending rules: rules concerning the use of KAKENHI

Moreover, these three sets of rules apply as follows, depending on whether the funding is granted by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) or by the Japan Society for the Promotion of Science (JSPS).

		Application rules	Assessment rules	Spending rules
Funding Granted by MEXT	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, to be performed by each research institution
Funding Granted by JSPS	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 (Scientific Research, etc.) ※The assessment rules for FY2012 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, 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 (KAKENHI (Multi-year Fund)), to be performed by each research institution

(2) Appropriate use of KAKENHI

KAKENHI are funded by the tax of citizens and other sources. Researchers receiving KAKENHI have a duty to comply with the related laws, regulations and spending 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.

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 a request for approval for the carry-over is submitted to the Finance Minister through the Minister of Education, Culture, Sports, Science and Technology (MEXT), 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.

(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 the grant 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 the grant 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.

6. Guidelines on the Proper Implementation of Competitive Funding

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. 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 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))".)

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 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 applicant may be requested to completely or partially return the provided KAKENHI in question. The severity of the fraudulent acts and other matters will be taken into consideration.

In addition, 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 as stated in the above-mentioned ①, 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: March 27, 2009))

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.**

7. 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 spending 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.

II. Details of the Call for Proposals

From FY2012 on, a call for proposals for "Grants-in-Aid for Scientific Research KAKENHI" will be conducted together for "KAKENHI (Series of Single-year Grants)" and "KAKENHI (Multi-year Fund)".

The current round of call for proposals starts before the finalization of the budget for FY2012, in order to enable researchers to proceed with their preparations for the screening as soon as possible, so that they can promptly commence their research.

Therefore, please be aware in advance that, depending on the situation regarding the finalization of the budget, the details may 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:

(1) KAKENHI (Series of Single-year Grants)**(Specially Promoted Research, Scientific Research(S/A/B), Grant-in-Aid for Young Scientists (A))**

(2) KAKENHI (Multi-year Fund)**(Scientific Research(C), Challenging Exploratory Research, Grant-in-Aid for Young Scientists (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.

The Date and Time	**Procedures to be Performed by the Principal Investigator** (The Principal Investigator should carefully read the sections "Ⅲ Instructions & Procedures for those Intending to Apply" and "Ⅳ Instructions & Procedures for those Who Have Already Been Accepted" for details, and should ensure he or she performs each procedure without omitting anything.)	**Procedures to be Performed by the Research Institution** (The Research Institution should carefully read the sections "Ⅴ Instructions & Procedures for Staff of the Research Institution" for details, and should ensure he or she performs each procedure without omitting anything.)
From September 1, 2011(Thu.) Start of the Call for Proposals **November 10 (Thu.) 4:30 pm** **Deadline for the Submission**	① Investigators should access the Electronic Application System using the ID and the e-Rad Password which has been provided by the research institution to which they belong and preparing the application ↓ ②The Principal Investigator should submit (send) the application documents to the research institution he/she belongs to, by the deadline decided the research institution.	1) The Research Institution obtains "An Electronic Certificate for Research Institutions, an ID, or Password" for e-Rad from the person in charge of the operation of e-Rad (This does not apply if the research institution already obtained them.) ※The issue of the ID and the Password takes about 2 weeks. 2) Registration of the Researcher Information in e-Rad and other matters 3) Research institutions issue an "ID and password" to the Principal Investigators. (This does not apply if the researcher already obtained an ID and a password.) 4) Submission of Submission of the "Self-assessment Checklist on the Implementation of the System", based on the Guidelines. (Deadline for submission: October 7 (Fri.)) 5) Submission (Sending) of the Application Documents

Notes:

1. After the Principal Investigator submit (Sending) to the application to the research institution (mentioned in "Procedures to be Performed by the Principal Investigator" ②), the research institution should submit (Sending) to the JSPS the application the application by the deadline for the submission (mentioned in "Procedures to be Performed by the Research Institution" 5)).

   Next, he or she should verify the section "Preparing the Application and Submitting the Application" (pages 41-50), etc., as well as verify the procedures designated by the research institution, etc. (deadline for the submission of the application, etc., in the research institution), with the office worker in charge in the research institution.

2. The research institution should perform the procedures 1) to 3) mentioned in the section "Procedures to be Performed by the Research Institution" where necessary.

Moreover, when the researcher is applying for KAKENHI, he or she should register the researcher information beforehand in e-Rad from the research institution to which he or she belongs. The research institution should perform the registration in e-Rad. Therefore, the researcher who is planning to apply should verify the state of the registration with the office worker in charge in the research institution.

Moreover, the research institution should submit a "Self-assessment Checklist on the Implementation of the System", based on the "Guidelines on the Management and Audit of Public Research Funds at Research Institutions (Implementation Standards)" (section 4 in "Procedures to Be Completed by the Research Institution"). If it has not been submitted, the applications of researchers belonging to the research institution in question will not be accepted in the Electronic Application System.

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

Specially Promoted Research	Scientific Research (S),	Scientific Research (A/B/C), Challenging Exploratory Research, Grant-in-Aid for Young Scientists (A/B)
December 2011 to April 2012: Screening Late April 2012: Informal decision to grant the funding Middle of May: Application for funding Middle of June: Decision concerning the granting of the funding Late June: Funding provided	December 2011 to May 2012: Screening Late May 2012: Informal decision to grant the funding Middle of June: Application for funding Late June: Decision concerning the granting of the funding Early July: Funding provided	December 2011 to March 2012: Screening Early April 2012: Informal decision to grant the funding Late April: Application for funding Middle of June: Decision concerning the granting of the funding Late June: Funding provided

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) 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 (or, for research projects of which the research period is 3 years, in the final fiscal year). 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.

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 (or, for research projects of which the research period is 3 years, in the final fiscal year). 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/B): KAKENHI (Series of Single-year Grants)
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
Scientific Research (B)	**between 5 million and 20 million yen**	General / Overseas Academic Research
Scientific Research (C)	**5 million yen or less**	General

C) Research period: **Three to five years**

D) Screening division: When applying, select one of the following screening divisions, because the criteria of the screening are different depending on the nature of the research project for which the applicant applies.

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".

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, excluding inexpensive personal computers.

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

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

A) Intended for: **Research 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**

E) 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)
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, 2011 (a person born on April 2, 1971, 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
Grant-in-Aid for Young Scientists (A)	**From 5 million yen to 30 million yen**
Grant-in-Aid for Young Scientists (B)	**5 million yen or less**

C) Research period: **Two to four years**

D) Research funding: **For Grant-in-Aid for Young Scientists (A), KAKENHI (Series of Single-year Grants) 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(*)" and transitional measures.

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).

In addition, between now and the call for proposals of FY2013, JSPS decided to establish the following transitional measures.

○ Even if the number of times an applicant received a Grant-in-Aid for Young Scientists (S/A/B) is already more than two times, he or she can apply and receive a grant one time for one of the research categories Grant-in-Aid for Young Scientists (A) or Grant-in-Aid for Young Scientists (B) within the set period of transitional measures, if he or she does so within the range of the age limits.

(*) "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

From FY2012 on, a call for proposals for “Grants-in-Aid for Scientific Research KAKENHI” will be conducted together for “KAKENHI (Series of Single-year Grants)” and “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.

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 26).

In addition, JSPS Fellows 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 of 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** (research assistant excluding) (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 90)

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 FY2010, 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.**

However, for the registration in e-Rad, the applicant does not need to perform the procedures directly with the MEXT or JSPS, but the Principal Investigator should verify the registration

procedures that the research institution to which he or she belongs needs to perform (the 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, because the research institution to which he or she belongs needs to 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 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 login into e-Rad, to access the Electronic Application System, and to prepare the application documents.

Therefore, the applicant should first be **provided with an ID and a password for e-Rad** by the research institution.

Moreover, once the ID and the password have been provided they can be used, unless the research institution changes.In addition, Researchers who already obtained an ID and a password issued by e-Rad do not need to obtain it again.

(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 FY2012 call for proposals for this research category is scheduled for March 2012, 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 10, 2011) for the research categories (*1) 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 2011.

② Persons who could not apply for the research categories (*1) 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 2011, because they took up maternity leave or childcare leave in FY2011.

(Applicants should verify the details in the Application Procedures of March 2012.)

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.

(*1) Among the Grants-in-Aid for Scientific Research for FY2012 there are "Scientific Research on Innovative Areas", "Specially Promoted Research", "Scientific Research", "Challenging Exploratory Research" and

"Grant-in-Aid for Young Scientists".

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.

On Moreover, 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.35-40.

(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 35)

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 E below apply.

However, this does not apply in case a researcher extended the research period for a KAKENHI (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 32).

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 a researcher can apply for both research projects, but, if both are adopted, the researcher who applied has to decide which one he or she will implement.

(cases that fall under "※")

E 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 37)

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 FY2012 (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
For "□" , the research categories in the section B 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 39)

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 FY2012 (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).

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 FY2012 (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.

①On 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 he or she does not implement, if he or she can only implement the research category mentioned in section A or section B, as laid down in the rules.

However, for research projects of the research category "Scientific Research on Priority Areas" (Summarizing Group Research Projects, Support Group Research Projects and Adjustment Group Research Projects), it may happen that the implementation of the research through a replacement of the Principal Investigator is recognized, in "cases where it is recognized that the research of the area or the research project in question can be continued by a person from among the Co-Investigator(s) (*kenkyū-buntansha*) who can replace the Principal Investigator".

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.

C As a result of the Restrictions on Duplication in case of Co-Investigators (*kenkyū-buntansha*) of Specially Promoted Research and Principal Investigators of other research categories, a researcher should abandon (or should decline to accept) research projects he or she does not implement, if he or she can only implement a research project of Specially Promoted Research (as Co-Investigator (*kenkyū-buntansha*).

However, for research projects of the research category "Scientific Research on Priority Areas" (Summarizing Group Research Projects, Support Group Research Projects and Adjustment Group Research Projects), it may happen that the implementation of the research through a replacement of the Principal Investigator is recognized, in "cases where it is recognized that the research of the area or the research project in question can be continued by a person from among the Co-Investigator(s) (*kenkyū-buntansha*) who can replace the Principal Investigator".

② On the handling in case both applications that fall under "※" are adopted, but the researcher selects one of the research projects

A In case a researcher selects and implements a research project of "Scientific Research (S)", he or she should abandon (or should decline to accept) research projects of "Scientific Research on Innovative Areas (Research in a Proposed Research Area)" (Planned Research).

B In case a researcher implements a research project of "Scientific Research on Innovative Areas (Research in a Proposed Research Area)" (Planned Research), he or she should abandon (or should decline to accept) research projects of "Scientific Research (S)".

(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 9.

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 case of research categories creating research areas, etc. is special (see "Application Procedures for Grants-in-Aid for Scientific Research-KAKENHI- FY2012 (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".

   C Persons who participate as Principle Investigators or Co-Investigators (*kenkyū-buntansha*) to "Summarizing Group Research Projects", "Support Group Research Projects" or "Adjustment Group Research Projects" in "Scientific Research on Priority Areas" should verify the relation

with "Participation Form to General Planned Research (Summarizing Group Research Projects, Support Group Research Projects and Adjustment 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 FY2012 as the final fiscal year, and ② has been selected before FY2010, 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, 2013.

(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 whishes 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" or Grant-in-Aid for Young Scientists, the research period is 4 years or more, and FY2012 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".
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". 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) 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).
4) When the research project for which a new application has been made is selected, the KAKENHI of FY2011 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 grand 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 FY2011

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, 2013 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), 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).

(Handling of Restrictions on Duplicate Applications of Principal Investigators Who are Affected by the Great East Japan Earthquake)

1) If Principal Investigators of research projects for which the research period continues beyond FY2012 (continued research projects) wish to modify the research plan of their continued research projects, due to the effects of the Great East Japan Earthquake, they can apply for new research projects, after submitting Form U – 2 "Report on the State of Affairs Regarding the Effects of the Great East Japan Earthquake" by October 13 (Thursday) 2011. (Documents that arrive later will not be accepted.)

   Moreover, based on this special exception, the number of projects for which they can apply in addition to the one continued research project is limited to one project.
2) The restrictions on duplicate applications do not apply to cases where there is, on the one hand, a new application for a research project and, on the other hand, a continued research project on which the new application is based.
3) When the research project for which a new application has been made is selected, the KAKENHI of FY2011 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 grand has been paid, the full amount of the grant should be refunded.

When the research project for which a new application has been made is not selected, the KAKENHI of FY2011 for the continued research project will, as a general rule, be paid.

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 FY2012 (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)	Scientific Research on Priority Areas			Challenging Exploratory Research
					General	General Overseas Academic Research	General	General Overseas Academic Research	General			Research in a proposed research area			
												Summarizing group	Planned research	Publicly invited research	
			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
Specially Promoted Research		**New**	**PI**	－	■	■	■	■	■	■	■	■	×	■	■	■
		Continued	**PI**	－	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Scientific Research (S)		**New**	**PI**	□	－	■	■	×	×	×	×	×	□	※		
		Continued	**PI**	□	－	▲	▲	▲	▲	▲	▲	▲	▲	▲		
Scientific Research (A)	**General**	**New**	**PI**	□	□	－	★	×	★	×	×	×				
		Continued	**PI**	□	▲	－	★	▲	★	▲	▲	▲				
	General Overseas Academic Research	**New**	**PI**	□	□	★	－	★	×	★	×	×				
		Continued	**PI**	□	▲	★	－	★	▲	★	▲	▲				
Scientific Research (B)	**General**	**New**	**PI**	□	×	×	★	－	★	×	×	×				
		Continued	**PI**	□	▲	▲	★	－	★	▲	▲	▲				
	General Overseas Academic Research	**New**	**PI**	□	×	★	×	★	－	★	×	×				
		Continued	**PI**	□	▲	★	▲	★	－	★	▲	▲				
Scientific Research (C)	**General**	**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**	□	□	□	□	□	□	□	□	□	□	□	□	□

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.

※:A researcher can apply for both research projects. However, in case both are adopted, the researcher selects only one research project and implements it.

★: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 FY2012 (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
						General	General Overseas Academic Research	General	General Overseas Academic Research	General			
				New	New	New	New	New	New	New	New	New	New
				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	□									
Scientific Research on Priority Areas	Planned research	Continued	PI	□									
	Publicly invited research	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.

※:A researcher can apply for both research projects. However, in case both are adopted, the researcher selects only one research project and implements it.

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 FY2012 (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				Specially Promoted Research	Scientific Research (S)	Scientific Research (A)		Scientific Research (B)		Scientific Research (C)	Scientific Research on Priority Areas	Challenging Exploratory Research
						General	General Overseas Academic Research	General	General Overseas Academic Research	General	Research in a proposed research area (Planned research)	
				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)
Specially Promoted Research		New	PI	×	■	■	■	■	■	■	■	■
		Continued	PI	▲	▲	▲	▲	▲	▲	▲	▲	▲
Scientific Research (S)		New	PI									
		Continued	PI									
Scientific Research (A)	General	New	PI									
		Continued	PI									
	General Overseas Academic Research	New	PI									
		Continued	PI									
Scientific Research (B)	General	New	PI									
		Continued	PI									
	General Overseas Academic Research	New	PI									
		Continued	PI									
Scientific Research (C)	General	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									

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 FY2012 (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: Specially Promoted Research	Scientific Research (S)	Scientific Research (A)		Scientific Research (B)		Scientific Research (C)	Challenging Exploratory Research
						General	General Overseas Academic Research	General	General Overseas Academic Research	General	
				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)
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	□							
Scientific Research on Priority Areas	Planned research	Continued	PI	□							
	Publicly invited research	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 B.

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 FY2012(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)	Scientific Research on Priority Areas			Challenging Exploratory Research
					General	General Overseas Academic Research	General	General Overseas Academic Research	General			Summarizing Group	Planned research	Publicly invited research	
			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
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)**	□											
	General 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)**	□											
	General Overseas Academic Research	**New**	**Co-I (kenkyu-buntansha)**	□											
		Continued	**Co-I (kenkyu-buntansha)**	□											
Scientific Research (C)	**General**	**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 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 FY2012 (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
						General	General Overseas Academic Research	General	General Overseas Academic Research	General			
				New	New	New	New	New	New	New	New	New	New
				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)	□									
		Continued	Co-I (kenkyu-buntansha)	□									
Scientific Research on Priority Areas	Planned research	Continued	Co-I (kenkyu-buntansha)	□									
	Publicly invited research	Continued	Co-I (kenkyu-buntansha)	□									

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 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 attaching the separately prepared Files with Project Description (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) Application via the Electronic Application System

When applying, **the applicant should login into the "e-Rad" using the e-Rad ID and Password that is provided by the research institution to which he or she belongs. Then he or she should access the "Electronic Application System" and prepare the application documents.**

1) Researchers who apply as Principal Investigators, based on the "FY2012 Grants-in-Aid for Scientific Research – KAKENHI, Procedures for Preparing and Entering a Proposal for Grant-in-Aid for Specially Promoted Research (New/Continued)", in the case of "Specially Promoted Research", and based on the "Procedures for Preparing and Entering Application Information (Items to be filled in on the form on the website) (Scientific Research, Challenging Exploratory Research, Grant-in-Aid for Young Scientists (A/B))", in the case of the other research categories. Finally they should attach the project description file (Items to be entered in the attached file), that has been separately

   Note The project description file (items to be entered in the attached file) can also be downloaded from the JSPS website on Grants-in-Aid for Scientific Research – KAKENHI (http://www.jsps.go.jp/j-grantsinaid/index.html) before obtaining an ID and a password.

2) The research institution to which the Principal Investigator belongs should compile and submit the necessary proposal for grant-in-aid.

   Therefore, the Principal Investigator should **submit (send) the application documents to the research institution he/she belongs to, by the deadline decided the research institution.** (He or she cannot submit (send) them directly to JSPS.)

Moreover, when submitting (sending) it, he or she should sufficiently check the details of the Proposal for Grant-in-Aid (PDF file) he or she prepared, and perform the "check completed and submission" process.

(He or she should submit the proposal for grant-in-aid (PDF file) to the research institution to which he or she belongs.)

(2) Preparing the proposal for grant-in-aid

The Principal Investigator should prepare a proposal for grant-in-aid, **for "Specially Promoted Research", in accordance with the "FY2012 Grants-in-Aid for Scientific Research, Procedures for Preparing and Entering a Proposal for Grants-in-Aid for Specially Promoted Research (New and Continued)"** and, **for the research categories other than "Specially Promoted Research", in accordance with the "Procedures for Preparing and Entering Application Information (to be entered in the website) (Scientific Research, Challenging Exploratory Research, Grant-in-Aid for Young Scientists (A/B))" and "FY2012 Grants-in-Aid for Scientific Research, Procedures for Preparing and Entering a Proposal for Grant-in-Aid" for each research category (screening panel).**

On the Proposal for grant-in-aid

1) 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 attaching 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.

<table>
<tr><td rowspan="3">Research category</td><td colspan="2">Proposal for grant-in-aid</td></tr>
<tr><td>First part</td><td>Second part</td></tr>
<tr><td>Application information (to be entered in the website)</td><td>Project description file</td></tr>
<tr><td>Specially Promoted Research (New) (English Version)</td><td rowspan="14">To be entered in the electronic application system</td><td>S-1-1 (1)</td></tr>
<tr><td>Specially Promoted Research (New) (Japanese Version)</td><td>S-1-1 (2)</td></tr>
<tr><td>Specially Promoted Research (Continued)</td><td>S-1-2</td></tr>
<tr><td>Scientific Research (S)</td><td>S-1-6</td></tr>
<tr><td>Scientific Research (A)</td><td>S-1-7</td></tr>
<tr><td>Research related to the screening panel for Overseas Academic Research</td><td>S-1-9</td></tr>
<tr><td>Scientific Research (B)</td><td>S-1-7</td></tr>
<tr><td>Research related to the screening panel for Overseas Academic Research</td><td>S-1-9</td></tr>
<tr><td>Scientific Research (C)</td><td>S-1-8</td></tr>
<tr><td>Challenging Exploratory Research</td><td>S-1-10</td></tr>
<tr><td>Grant-in-Aid for Young Scientists (A)</td><td>S-1-12</td></tr>
<tr><td>Grant-in-Aid for Young Scientists (B)</td><td>S-1-13</td></tr>
<tr><td>Continued Research Project (in the case of a major change in the research project)</td><td>S-1-14</td></tr>
</table>

2) 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.

3) 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 Government Research and Development Database of the Cabinet Office through e-Rad.)

Moreover, in the case of selected research projects, the title of the proposed project, the name of the Principal Investigator, the amount of the budget to be granted, etc. will be disclosed through press release materials, the database of the National Institute of Informatics, etc.

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 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 46 1)) can set up a team of project members together with a Co-Investigator (*kenkyū-buntansha*) (See page 47 2)), a Co-Investigator (*renkei-kenkyūsha*) (See page 48 3)), and/or a Research Collaborator (See page 48 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 ([Note])**

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.
Moreover, JSPS Fellows, 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 of 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 page 93)
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) It is essential that Principal Investigators are not designated as ineligible for receipt of funding in FY2012, because they committed fraudulent use, fraudulent receipt of grants or fraudulent acts using Grants-in-Aid for Scientific Research 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) For the Co-Investigator (*kenkyū-buntansha*) it is necessary to establish, like in the case of the

Principal Investigator, that he or she is not ineligible for FY2010, because he or she committed fraudulent use, fraudulent receiving of grants or fraudulent acts using Grants-in-Aid for Scientific Research or other competitive funding.

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

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.

4) Research Collaborator

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*). He/she does not necessarily have to be eligible for application.
(For example, a Fellow of the Japan Society for the Promotion of Science (JSPS Fellow), 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, etc.)

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/B)"

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 FY2012 Grants-in-Aid for Scientific Research"** (hereinafter called "List of Research Fields" ; see pages 51-53), 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"** (see pages 60-88).

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 54-59), 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)", 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 "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.

	Desired area for screening
Humanities and Social Sciences	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)
Science and Engineering	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
Biological Sciences	13) Biology
	14) Agricultural sciences A (agriculture, agricultural chemistry, forestry, boundary agriculture) 15) Agricultural sciences B (agro-economics, agro-engineering, zootechnical science/veterinary medical science, fisheries 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)

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

(1) List of Categories, Areas, Disciplines and Research Fields for FY2012 Grants-in-Aid for Scientific Research

Category: Integrated Science and Innovative Science

Area	Discipline	Research Field	Item Number	Remark
Comprehensive fields	Informatics	Fundamental theory of informatics	1001	
		Software	1002	
		Computer system/Network	1003	A
				B
		Media informatics/Database	1004	A
				B
		Intelligent informatics	1005	
		Perception information processing/Intelligent robotics	1006	A
				B
		Sensitivity informatics/ Soft computing	1007	A
				B
		Library and information science/Humanistic social informatics	1008	A
				B
		Cognitive science	1009	
		Statistical science	1010	
		Bioinformatics/ Life informatics	1011	A
				B
	Cerebral Neuroscience	Neuroscience in general	1101	
		Nerve anatomy/ Neuropathology	1102	A
				B
		Neurochemistry/ Neuropharmacology	1103	
		Neurophysiology and muscle physiology	1104	A
				B
		Fusional basic brain science	1105	
		Fusional brain recording science	1106	
		Fusional social brain science	1107	
	Laboratory animal science	Laboratory animal science	1201	
	Biomedical engineering	Biomedical engineering/ Biological material science	1301	A
				B
		Medical systems	1302	
		Rehabilitation science/ Welfare engineering	1303	A
				B
	Health/Sports science	Physical education	1401	A
				B
		Sports science	1402	A
				B
		Applied health science	1403	A
				B
	Human life science	General human life sciences	1501	A
				B
		Eating habits, studies on eating habits	1502	A
				B
	Science education/ Educational technology	Science education	1601	※
		Educational technology	1602	※
	Sociology/ History of science and technology	Sociology/History of science and technology	1701	
	Cultural property science	Cultural property science	1801	
	Museology	Museology	1851	
	Geography	Geography	1901	
	Oncology	Carcinogenesis	1951	
		Tumor biology	1952	
		Tumor immunology	1953	
		Tumor diagnosis	1954	
		Clinical oncology	1955	
		Cancer epidemiology and prevention	1956	

Area	Discipline	Research Field	Item Number	Remark
New multidisciplinary fields	Environmental science	Environmental dynamic analysis	2001	
		Environmental impact assessment/ Environmental policy	2002	A
				B
		Risk sciences of radiation/ Chemicals	2003	A
				B
		Environmental technology/ Environmental materials	2004	A
				B
	Quantum beam science	Quantum beam science	2051	
	Nano/Micro science	Nanostructural science	2101	A
				B
		Nanomaterials/ Nanobioscience	2102	A
				B
		Microdevices/Nanodevices	2103	A
				B
	Social/Safety system science	Social systems engineering/ Safety system	2201	A
				B
		Natural disaster science	2202	A
				B
	Genome science	Genome biology	2301	
		Medical genome science	2302	
		System Genome Science	2303	
		Applied Genomics	2304	A
				B
	Biomolecular science	Biomolecular science	2401	
		Chemical biology	2402	
	Resource conservation science	Resource conservation science	2501	
	Area studies	Area studies	2601	
	Gender	Gender	2701	

Category: Humanities and Social Sciences

Area	Discipline	Research Field	Item Number	Remark
Humanities	Philosophy	Philosophy/Ethics	2801	
		Chinese philosophy	2802	
		Indian philosophy/ Buddhist studies	2803	
		Religious studies	2804	
		History of thought	2805	
		Aesthetics/Art history	2806	
	The arts	Study of the arts/History of the arts/Arts in general	2851	
	Literature	Japanese literature	2901	
		Literature in English	2902	
		European literature (English literature excluded)	2903	
		Literatures/Literary theories in other countries and areas	2904	
	Linguistics	Linguistics	3001	※
		Japanese linguistics	3002	
		English linguistics	3003	
		Japanese language education	3004	
		Foreign language education	3005	※
	History	Historical studies in general	3101	
		Japanese history	3102	
		Asian history	3103	
		History of Europe and America	3104	
		Archaeology	3105	
	Human geography	Human geography	3201	
	Cultural anthropology	Cultural anthropology/Folklore	3301	

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.

In the case of “Scientific Research (C)”, 13 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.

（Category: Humanities and Social Sciences）

Area	Discipline	Research Field	Item Number	Remark
Social sciences	Law	Fundamental law	3401	
		Public law	3402	
		International law	3403	
		Social law	3404	
		Criminal law	3405	
		Civil law	3406	
		New fields of law	3407	
	Politics	Politics	3501	
		International relations	3502	
	Economics	Economic theory	3601	
		Economic doctrine/ Economic thought	3602	
		Economic statistics	3603	
		Applied economics	3604	
		Economic policy	3605	
		Public finance/ Monetary economics	3606	
		Economic history	3607	
	Business administration	Business administration	3701	※
		Commerce	3702	
		Accounting	3703	
	Sociology	Sociology	3801	※
		Social welfare and social work studies	3802	
	Psychology	Social psychology	3901	
		Educational psychology	3902	
		Clinical psychology	3903	
		Experimental psychology	3904	
	Education	Education	4001	※
		Sociology of education	4002	
		Education on school subjects and activities	4003	※
		Special needs education	4004	

Category: Science and Engineering

Area	Discipline	Research Field	Item Number	Remark
Mathematical and physical sciences	Mathematics	Algebra	4101	※
		Geometry	4102	
		General mathematics (including Probability theory/ Statistical mathematics)	4103	
		Basic analysis	4104	
		Global analysis	4105	
	Astronomy	Astronomy	4201	
	Physics	Particle/Nuclear/Cosmic ray/ Astro physics	4301	※
		Condensed matter physics Ⅰ	4302	
		Condensed matter physics II	4303	※
		Mathematical physics/ Fundamental condensed matter physics	4304	
		Atomic/Molecular/ Quantum electronics	4305	
		Biophysics/Chemical physics	4306	
	Earth and planetary science	Solid earth and planetary physics	4401	
		Meteorology/Physical oceanography/Hydrology	4402	
		Space and upper atmospheric physics	4403	
		Geology	4404	
		Stratigraphy/Paleontology	4405	
		Petrology/Mineralogy/ Science of ore deposit	4406	
		Geochemistry/Astrochemistry	4407	
	Plasma science	Plasma science	4501	
Chemistry	Basic chemistry	Physical chemistry	4601	
		Organic chemistry	4602	
		Inorganic chemistry	4603	
	Applied Chemistry	Analytical chemistry	4701	
		Synthetic chemistry	4702	
		Polymer chemistry	4703	
		Functional materials chemistry	4704	
		Environmental chemistry	4705	
		Bio-related chemistry	4706	
	Materials chemistry	Functional materials/Devices	4801	
		Organic industrial materials	4802	
		Inorganic industrial materials	4803	
		Polymer/Textile materials	4804	

Area	Discipline	Research Field	Item Number	Remark
Engineering	Applied physics	Applied materials science/ Crystal engineering	4901	
		Thin film/Surface and interfacial physical properties	4902	
		Applied optics/Quantum optical engineering	4903	
		Applied physics, general	4904	
		Engineering fundamentals	4905	
	Mechanical engineering	Materials/Mechanics of materials	5001	
		Production engineering/ Processing studies	5002	
		Design engineering/ Machine functional elements/ Tribology	5003	
		Fluid engineering	5004	
		Thermal engineering	5005	
		Dynamics/Control	5006	
		Intelligent mechanics/ Mechanical systems	5007	
	Electrical and electronic engineering	Power engineering/ Power conversion/ Electric machinery	5101	
		Electronic materials/ Electric materials	5102	
		Electron device/ Electronic equipment	5103	
		Communication/Network engineering	5104	
		System engineering	5105	
		Measurement engineering	5106	
		Control engineering	5107	
	Civil engineering	Civil engineering materials/ Construction/ Construction management	5201	
		Structural engineering/ Earthquake engineering/ Maintenance management engineering	5202	
		Geotechnical engineering	5203	
		Hydraulic engineering	5204	
		Civil engineering project/ Traffic engineering	5205	
		Civil and environmental engineering	5206	
	Architecture and building engineering	Building structures/materials	5301	
		Architectural environment/equipment	5302	
		Town planning/Architectural planning	5303	
		Architectural history/design	5304	
	Material engineering	Physical properties of metals	5401	
		Inorganic materials/ Physical properties	5402	
		Composite materials/ Physical properties	5403	
		Structural/Functional materials	5404	
		Material processing/treatments	5405	
		Metal making engineering	5406	
	Process engineering	Properties in chemical engineering process/Transfer operation/Unit operation	5501	
		Reaction engineering/ Process system	5502	
		Catalyst/Resource chemical process	5503	
		Biofunction/Bioprocess	5504	
	Integrated engineering	Aerospace engineering	5601	
		Naval and maritime engineering	5602	
		Earth system and resources enginnering	5603	
		Recycling engineering	5604	
		Nuclear fusion studies	5605	
		Nuclear engineering	5606	
		Energy engineering	5607	

Category: Biological Sciences

Area	Discipline	Research Field	Item Number	Remark
Biology	Basic biology	Genetics/Genome dynamics	5701	
		Ecology/Environment	5702	
		Plant molecular biology/ Plant physiology	5703	
		Morphology/Structure	5704	
		Animal physiology/ Animal behavior	5705	
		Biodiversity/Systematics	5706	
	Biological science	Structural biochemistry	5801	
		Functional biochemistry	5802	
		Biophysics	5803	
		Molecular biology	5804	
		Cell biology	5805	
		Developmental biology	5806	
		Evolutionary biology	5807	
	Anthropology	Physical anthropology	5901	
		Applied anthropology	5902	
Agricultural sciences	Agriculture	Breeding science	6001	
		Crop science/Weed science	6002	
		Horticulture/Landscape architecture	6003	
		Plant pathology	6004	
		Applied entomology	6005	
	Agricultural chemistry	Plant nutrition/Soil science	6101	
		Applied microbiology	6102	
		Applied biochemistry	6103	
		Bioproduction chemistry/ Bioorganic chemistry	6104	
		Food science	6105	
	Forestry	Forest science	6201	
		Wood science	6202	
	Fisheries science	General fisheries	6301	
		Fisheries chemistry	6302	
	Agro-economics	Agronomy	6401	
	Agro-engineering	Irrigation, drainage and rural engineering/Rural planning	6501	
		Agricultural environmental engineering	6502	
		Agricultural information engineering	6503	
	Zootechnical science/ Veterinary medical science	Zootechnical science/ Grassland science	6601	
		Applied animal science	6602	
		Basic veterinary science/ Basic zootechnical science	6603	
		Applied veterinary science	6604	
		Clinical veterinary science	6605	
	Boundary agriculture	Boundary agriculture	6701	
		Applied molecular and cellular biology	6702	
Medicine, dentistry, and pharmacy	Pharmacy	Chemical pharmacy	6801	
		Physical pharmacy	6802	
		Biological pharmacy	6803	※
		Drug development chemistry	6804	
		Environmental pharmacy	6805	
		Medical pharmacy	6806	
	Basic medicine	General anatomy (including histology/embryology)	6901	※
		General physiology	6902	
		Environmental physiology (including physical medicine and nutritional physiology)	6903	
		General pharmacology	6904	
		General medical chemistry	6905	
		Pathological medical chemistry	6906	
		Human genetics	6907	
		Human pathology	6908	※
		Experimental pathology	6909	※
		Parasitology (including sanitary zoology)	6910	
		Bacteriology (including mycology)	6911	
		Virology	6912	
		Immunology	6913	

Area	Discipline	Research Field	Item Number	Remark
Medicine, dentistry, and pharmacy	Boundary medicine	Medical sociology	7001	
		Applied pharmacology	7002	
		Laboratory medicine	7003	
		Pain science	7004	
	Society medicine	Hygiene	7101	
		Public health/Health science	7102	
		Legal medicine	7103	
	Clinical internal medicine	General internal medicine (including psychosomatic medicine)	7201	
		Gastroenterology	7202	※
		Circulatory organs internal medicine	7203	※
		Respiratory organ internal medicine	7204	※
		Kidney internal medicine	7205	※
		Neurology	7206	※
		Metabolomics	7207	※
		Endocrinology	7208	
		Hematology	7209	※
		Collagenous pathology/ Allergology	7210	※
		Infectious disease medicine	7211	
		Pediatrics	7212	※
		Embryonic/Neonatal medicine	7213	
		Dermatology	7214	※
		Psychiatric science	7215	※
		Radiation science	7216	※
	Clinical surgery	General surgery	7301	※
		Digestive surgery	7302	※
		Thoracic surgery	7303	※
		Cerebral neurosurgery	7304	※
		Orthopaedic surgery	7305	※
		Anesthesiology/Resuscitation studies	7306	※
		Urology	7307	※
		Obstetrics and gynecology	7308	※
		Otorhinolaryngology	7309	※
		Ophthalmology	7310	※
		Pediatric surgery	7311	
		Plastic surgery	7312	
		Emergency medicine	7313	
	Dentistry	Morphological basic dentistry	7401	
		Functional basic dentistry	7402	
		Pathobiological dentistry/ Dental radiology	7403	
		Conservative dentistry	7404	
		Prosthetic dentistry	7405	
		Dental engineering/ Regenerative dentistry	7406	
		Surgical dentistry	7407	※
		Orthodontic/Pediatric dentistry	7408	
		Periodontal dentistry	7409	
		Social dentistry	7410	
	Nursing	Fundamental nursing	7501	
		Clinical nursing	7502	
		Lifelong developmental nursing	7503	
		Community health/ Gerontological nurisng	7504	※

(2) Table separate from the "List of Categories, Areas, Disciplines and Research Fields for FY2011 Grants-in-Aid for Scientific Research"

○ List of Disciplines and Research Fields with a Time Limit

Area	Detail	Item Number	Set Period
Children studies (Studies of environment on children)	The quality of the physical, human, and socio-cultural environment surrounding children (from infancy through youth) has deteriorated as a result of urbanization, the impact of information technology, the declining birthrate, and changes in the local community, and it has various influences on the body and the psychology of children. The conservation and restoration of a good environment for young people from the viewpoint of nurturing them should be a socially, as well as academically, important task. The environment surrounding children has been studied in wide-ranging research fields such as pedagogies, childcare studies, psychology, pediatrics, public health, child psychiatry, neurosciences, physical education, architecture, urban engineering, environmental science, robotics, and cognitive science. However, now the need for a fusion-type research incorporating divergent disciplines is apparent. This program promotes research on the environmental problems surround children which would, from an interdisciplinary perspective, study the influence of environment on young peoples bodies and psychology, by organizing various studies such as those of architecture and engineering on the physical environment (so-called“hardware”), and those on education and human, and socio-cultural environments (“software”).	9036	FY2009 — FY2012
Medical Physics/ Radiological Technology	“Medical Physics / Radiological Technology” is a research area in which physical and technological issues within radiology are explored. In recent years, various medical technologies based on radiation physics including radiation therapies using particle beams and a number of diagnostic technologies such as molecular imaging, are developed and have become widely used in a short period of time. Together with the rapidly growing needs for radiation therapies and diagnostic imaging, basic research which supports these fundamental technologies are very important in the expanding field of radiology. At the same time, such basic research supports development of technologies and human resources which will be necessary in a wide range of fields from basic to clinical application, including medical imaging engineering, radiation therapy, heavy particle therapy, nuclear medicine, and radiation protection. Although this field primarily aims clinical application toward radiology, the academic foundation and techniques are positioned to be in the fields of science and engineering. Therefore, researches where fundamental technologies which will cover a wide range of fields from science and engineering to medicine, and researches where new research area will be established will be expected.	9037	
Social symbiosis and exclusion	Since the 1980s, the spread of social exclusion, social inequality, etc. and social justice as a socio-political response to these problems have become a major challenge in developed countries. In Japan, since the mid-1990s, problems of income disparity and social inequality, and then in the 2000s, the poverty issue became major public concerns. Not only fatherless families, disabled persons and the aged, who have been the object of attention since long before, but also the spread of poverty and social exclusion across a broader spectrum of the population such as, for example, younger people and children, and, in addition to general socio-economic inequality, even the disparity in medical treatment and health have been increasingly highlighted. This area includes theoretical research on the social accumulation and spread of poverty and social exclusion, inequality and other matters, the grasping of the actual circumstances, and the measurement and the estimate of their influences. Moreover, concerning the question how society tackles these issues, this area also includes research on policies responding to actual social exclusions and to the mechanisms that generate social exclusion, and analysis of legal systems in relation to these issues. In addition, any synchronic and diachronic comparative research projects, such as empirical researches on the actual circumstances of social disparity, inquiries on the policy trends and on the revision of legal systems in developed countries, studies on the poverty issues in developing countries, and various historical studies are all important. JSPS is expecting researches that will contribute significantly to the development of this field.	9040	FY2010 — FY2012

Area	Detail	Item Number	Set Period
Design science	For the sake of the welfare of humanity and the enrichment of human life, the science of design opens an appropriate pathway for exciting and potentially transformational technology. The science of design has as its research object machines and tools, furniture, space, construction, cities, regions, culture, welfare and care, media, information-processing equipment, information content, drama, etc., in short, all the phenomena that support and enrich human living space. For the science of design, a fusion of knowledge that transcends a wide range of disciplines, starting from design research, which concerns design as such, to design engineering, modeling engineering, architecture, landscape engineering, sciences of living, anthropology, cognitive science and psychology, ergonomics, medical science and hygienics, sensory science, sensory engineering, information science, acoustics, computer science, social science, art science, etc., is necessary. Consequently, the science of design requires a broad based inter-disciplinary approach encompassing disciplines ranging from arts and social sciences to science and technology, as well as aethetics and ethics. This area has as its object the individual elements of the phenomena that make up our living spaces, the collectivity and organization of these elements, and the combination of these elements and societies that consist of various cultures. For this area, JSPS is expecting ambitious and creative research originating from an alliance of disciplines that transcends traditional disciplines, and consists of a merger of humanities-fields, science-fields and arts-fields. The aim of this research is the creation of a bright future for mankind.	9041	FY2010 ― FY2012
Mechanobiology	The cells that make up a living body are being exposed to a variety of mechanical stimuli that are caused not only by gravitation, but also by the movement of skeletal muscles and smooth muscles of internal organs in the body. At the same time the cells sense these stimuli and respond to them. That this mechanism is essential for the functional maintenance of the living body is, of course, clear from auditory sense and the sense of touch, and also when one considers amyotrophy of astronauts and osteoporosis. Moreover, excessive mechanical stimuli (elevated blood pressure) cause severe diseases, such as arterial sclerosis, cardiac failure, etc. On the other hand, with the growth, division, alteration of shape and movement of the cell, the occurring forces are fed back, and the functions of the cells regulate themselves. It is considered that insufficiencies of cells lead to developmental anomalies and cancer. In this way, the cell's capacity of reception of and response to mechanical stimuli is a core function that supports life, and is a fundamental and highly important subject of research not only for the development of basic biology, but also for the development of astromedicine, regenerative medicine, medical engineering, dentistry and engineering, and agriculture. JSPS is expecting research that aims at the creation of new academic fields, by integrating related research, and by making the mechanism of sensing of, and responding to mechanical stimuli that living bodies and cells possess, the pivotal axis of the research.	9042	
Bioethics	"Bioethics" is the field which mainly treats ethical aspects of life. However, it is an interdisciplinary field which not only treats various humanity fields, such as philosophy, ethics, sociology, law, economics, politics, cultural anthropology and history of technology but also overcrossing with a number of scientific fields such as biology, bio-science, anthropology, genetics, public health, pharmacology, basic medicine, clinical medicine , forensic medicine and nursing. Bioethics was founded in the USA in the 1970s, and its importance has been acknowledged widely throughout the world, especially in an era where genetic engineering, biotechnology and state-of-the-art medical technology are rapidly developing. In this field, many problems such as informed consent, medical decision making, abortion, genetic diagnosis, surrogate birth, brain death and transplantation, euthanasia and death with dignity, terminal care, ethics in nursing, human clone research, animal experimentation, genetic modification and so on are left unsolved. We sincerely hope that many ambitious researchers will endeavor in these areas of study.	9043	FY2011 ― FY2013

Area	Detail	Item Number	Set Period
Tourism Studies	The academic development of tourism studies complements the policy of promoting Japan as a tourism-oriented country from a scientific viewpoint. Until now, interdisciplinary scientific research on tourism has been carried out from diverse perspectives, such as, for example, “ecotourism”, “green” tourism, health tourism, “new” tourism (such as, for example, industrial and cultural tourism), the economic effects of tourism, the influence of tourism on regional communities and culture, town development and regional promotion through tourism, international tourism policy, the behavior and psychology of tourists, etc. These research topics have been extensively studied, in an interdisciplinary way, in every area of science, such as business administration, commercial science, economics, geography, sociology, psychology, civil engineering, urban engineering, architecture, environmental studies, etc. In each area, research activities on tourism have intensified. Nevertheless, in order to further the development of tourism studies academically, it is necessary to harmonize these dispersed research areas through interdisciplinary study. In this area, JSPS expects to promote the research activities ranging from basic theory concerning the original development of tourism studies to various kinds of applied research, in addition to the promotion of expansive research that entails a practical and academic approach, and that contributes to the development of those economic and social sectors engaged in tourism.	9044	FY2011 — FY2013
Reliable environmental measurement methods	In order to understand totally the relation between life and earth environment and to continue the reliable environment of the earth, it is required to develop a new measurement methods based on a new metrology. In this field, new measurement methods are developed to understand a safe life, a food safety, a medical safety, and a reliable environment. Especially, a super selective and wide dynamic range analytic method, a mobile and energy-saving measurement instrument, an imaging technique, super-selective analytical reagents, a new detection method of bio-related micro particle such as virus and pollen are highly required. In order to achieve the reliable environmental measurement methods, a wide approach is expected from medical, agricultural, pharmaceutical, environmental fields, in addition to scientific and engineering fields.	9045	
epigenetics	The regulation of gene expression is not achieved exclusively by the nucleotide sequence. The expression of genetic information is regulated by stable and yet plastic control mechanisms collectively referred to as epigenetics, that is, chemical and structural modifications of chromatin composed of genomic DNA and interacting proteins such as histones. Currently, epigenetics is a major research focus in the life sciences because of its demonstrated involvement in a wide variety of biological phenomena including embryogenesis, tissue-specific gene expression, genome imprinting, aging, tumorigenesis, neurodegenerative diseases and somatic cell cloning. JSPS is expecting ambitious research projects along these lines, which go beyond the frameworks of biological science disciplines such as genomics, molecular biology, cell biology, biochemistry, developmental biology, genetics and neuroscience, with the goal of elucidating the basic principles of epigenetics (operating principles, regulatory mechanisms and breakdown) commonly observed in the above-mentioned biological phenomena.	9046	

Area	Detail	Item Number	Set Period
Integrated Nutrition Science	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. 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. 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. 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.	9047	FY2011 — FY2013
Regenerative medicine	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.	9048	

Area	Detail	Item Number	Set Period
Care Studies	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. 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.	9049	FY2012 — FY2014
Cultural Research	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. 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. 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.	9050	
Land, Housing and Real Estate Study	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. 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. 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.	9051	

Area	Detail	Item Number	Set Period
Measurement Science and Technology in Omics	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.	9052	FY2012 — FY2014
Space life science	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.	9053	
Sleep Science	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. 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.	9054	

(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

1) The first stage of the screening of the research fields followed by A or B in the section “Integrated Science and Innovative Science” 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)”.

Category: Integrated Science and Innovative Science

Area: Comprehensive fields

Discipline: Informatics

Item Number	Research Field	Screening Sub-panel Number / Keyword	
1001	Fundamental theory of informatics	A	Computational theory
		B	Automata theory/Formal language theory
		C	Theory of programs
		D	Computational complexity theory
		E	Algorithm theory
		F	Cryptosystem
		G	Information mathematics
		H	Mathematical logic
		J	Discrete structure
		K	Computational learning theory
		L	Quantum computation theory
		M	Combinatorial optimization
1002	Software	A	Algorithm engineering
		B	Parallel processing/Distributed processing
		C	Programming paradigm/Programming language theory
		D	Implementation of programming systems
		E	Operating system
		F	Software engineering
		G	Software agent
		H	Specification/Verification of specification
		J	Development environment
		K	Development management
		L	Embedded software
1003	Computer system/ Network	A	Computer system
		A	Computer architecture
		B	Circuit and system
		C	VLSI design technology
		D	High performance computing
		E	Reconfigurable system
		F	Dependable computing
		G	Embedded system
		B	Information network
		H	Network architecture
		J	Network protocol
		K	Network security technology
		L	Mobile network technology
		M	Transport technology
		N	Overlay network
		P	Traffic engineering
		Q	Network management technology
		R	Measurement of networks
		S	Ubiquitous computing
		T	Large scale network simulation
		U	Interoperability
		V	Network node operating system
		W	Network information representation
		X	Basic technology of providing services

（Discipline: Informatics）

Item Number	Research Field	Screening Sub-panel Number / Keyword	
1004	Media informatics/ Database	A	Database, media, and information system
		A	Database (DataBase Manegement System, DBMS)
		B	Digital content
		C	Multimedia
		D	Information systems
		E	Web services
		F	Mobile systems
		G	Information retrieval
		H	Graphics
		J	Visualization
		K	Corpus
		L	Structured document
		B	User interface
		M	Human interface
		N	User model
		P	Groupware
		Q	Virtual reality
		R	Wearable appliance
		S	Universal design
		T	Accessibility
		U	Usability
1005	Intelligent informatics	A	Search, logic, and inference algorithms
		B	Learning and knowledge acquisition
		C	Knowledge bases and knowledge systems
		D	Intelligent system architecture
		E	Intelligent information processing
		F	Natural language processing
		G	Knowledge discovery and data mining
		H	Intelligent agent
		J	Ontology
		K	Web intelligence
1006	Perception information processing/ Intelligent robotics	A	Perceptual information processing
		A	Pattern recognition
		B	Image processing
		C	Speech processing
		D	Computer vision
		E	Information sensing
		F	Sensor fusion
		G	Sensing devices systems
		B	Intelligent robotics
		H	Intelligent robot
		J	Behavior and environment recognition
		K	Motion planning
		L	Sensory behavior system
		M	Autonomous system
		N	Digital human model
		P	Animation
		Q	Real world information processing
		R	Physical agents
		S	Intelligent room

（Discipline: Informatics）

Item Number	Research Field	Screening Sub-panel Number / Keyword
1007	Sensitivity informatics/ Soft computing	A Sensitivity informatics
		A Sensitivity design
		B Sensitivity expression
		C Sensitivity recognition
		D Sensitivity congnition
		E Sensitivity robotics
		F Sensitivity measurement evaluation
		G Ambiguity and sensitivity
		H Sensitivity information processing
		J Sensitivity database
		K Sensitivity interface
		L Sensitivity physiology
		M Sensitivity material products
		N Sensitivity industry
		P Sensitivity environmental science
		Q Sensitivity sociology
		R Sensitivity philosophy
		S Sensitivity pedagogy
		T Sensitivity brain science
		U Sensitivity management
		B Soft computing
		V Neural network
		W Genetic algorithm
		X Fuzzy theory
		Y Chaos
		Z Fractal
		a Complex systems
		b Probabilistic information processing
1008	Library and information science/ Humanistic social informatics	A Library and information science
		A Library science
		B Information services
		C Library information systems
		D Digital archives
		E Information organization
		F Information retrieval
		G Information media
		H Bibliometrics and scientometrics
		J Construction and management of information resources
		B Humanistic social informatics
		K Literature information
		L History information
		M Information sociology
		N Law information
		P Information economics
		Q Management information
		R Educational information
		S Art information
		T Medical information
		U Science and technology information
		V Intellectual property information
		W Geographic information
1009	Cognitive science	A Cognitive psychology
		B Evolution/Development
		C Learning/Thinking/Memorization
		D Reasoning/Problem solving
		E Sensation/Perception/Attention
		F Emotion/Feeling/Behavior
		G Comparative cognitive psychology
		H Cognitive philosophy
		J Brain cognitive science
		K Cognitive linguistics
		L Comparative decision making theory
		M Cognitive engineering
		N Cognitive archaeology
		P Cognitive model
		Q Sociability

（Discipline: Informatics）

Item Number	Research Field	Screening Sub-panel Number / Keyword
1010	Statistical science	A Research survey and experimental design
		B Multivariate analysis
		C Time series analysis
		D Classification and pattern recognition
		E Statistical inference
		F Computational staistics and computer aided statistics
		G Statistical prediction and statistical control
		H Model selection
		J Optimization theory
		K Pharmaceutical statistical analysis genome
		L Behaviormetrics
		M Mathematical finance
		N Data mining
		P Spatial statistics and environmental statistics
		Q Statistics education
		R Statistical quality control
		S Statistical learning theory
		T Social research and analysis plan
		U Data science
1011	Bioinformatics/ Life informatics	A Bioinformatics
		A Bioinformatics
		B Genome information processing
		C Proteome information processing
		D Computer simulation
		E Biosystem information sciences
		B Vitae system informatics
		F Biological information
		G Neuroinformatics
		H Neural information processing
		J Artificial life system
		K Molecular computing
		L DNA computing

Discipline: Cerebral Neuroscience

Item Number	Research Field	Screening Sub-panel Number / Keyword
1101	Neuroscience in general	A Molecular and cellular neuroscience
		B Developmental and regenerative neuroscience
		C Neuroendocrinology
		D Clinical neuroscience
		E Neuroinformatics
		F Cognitive neuroscience
		G Behavioral neuroscience
		H Noninvasive neuroimaging
		J Computational neuroscience
		K Neuropsychology
		L Neuroscience of language
		M Brain Pathology
1102	Nerve anatomy/ Neuropathology	A Neuroanatomy
		A Anatomy of neural tracts
		B Neural network
		C Neurohistology
		D Molecular neurobiology
		E Neural fine structure
		F Neurohistochemistry and neurocytochemistry
		G Neural development and its abnormality
		H Neural regeneration, remodeling and plasticity
		J Experimental morphology of the nervous system
		K Anatomical study of neuroimaging
		L Neurocytology
		B Neuropathology
		M Cellular neuropathology
		N Molecular neuropathology
		P Neurodegenerative diseases
		Q Developmental disorders
		R Senile dementia
		S Cerebrovascular disorders
		T Metabolic diseases
		U Toxic diseases
		V Brain tumors
		W Diseases of the spinal cord
		X Diseases of the muscle and peripheral nerve

(Discipline: Cerebral Neuroscience)

Item Number	Research Field	Screening Sub-panel Number / Keyword	
1103	Neurochemistry/ Neuropharmacology	A	Molecular and cellular neurobiology
		B	Development, differentiation, and aging
		C	Neurotransmitters and receptors
		D	Intracellular signal transduction
		E	Glial cells
		F	Pathophysiology and therapy of neuropsychiatric diseases
		G	Stem cell biology, regeneration, and repair
		H	Neural plasticity
		J	Neuropharmacology
		K	Drug development
		L	Genomic neuroscience
1104	Neurophysiology and muscle physiology	A	Neurophysiology
		A	Neuron, synapse, and neural circuit
		B	Glia
		C	Vision, audition, equilibrium, gustation, and olfaction
		D	Somatic and visceral sensation, and pain
		E	Posture and motor control
		F	Autonomic nervous regulation
		G	System neuroscience and neuroinformatics
		H	Cognition, language, memory, and emotion
		J	Functional neuroimaging
		K	Neurogenesis, development, regeneration, and repair
		L	Neurological pathophysiology
		B	Muscle physiology
		M	Muscle contraction mechanism and energetics
		N	Excitation-contraction coupling
		P	Molecular neurophysiology and molecular motor
		Q	Receptors and intracellular signal transduction
		R	Neural control of muscle and skeletal, cardiac, and smooth muscles
		S	Cardiac excitation and conduction abnormalities
		T	Myocardial dysfunction and regeneration
		U	Cardiac and smooth muscle remodeling
		V	Smooth muscle physiology
		W	Skeletal muscle physiology and pathophysilogy
1105	Fusional basic brain science	A	Genome brain science
		B	Epigenetics
		C	Brain molecule profiling
		D	Nano brain science
		E	Chemical biology
		F	Medicinal brain science
		G	Brain function probe
		H	Brain imaging
		J	Luminary brain science
		K	Neuron glial cross-interaction
		L	Brain function model animals
		M	Brain function behavioral analysis
		N	Brain and rhythm
		P	Sleep
1106	Fusional brain recording science	A	Brain morphology measurement
		B	Brain function measurement
		C	Real time brain blood flow measurement
		D	Brain activity recording (Recording)
		E	Brain information reading (Decoding)
		F	Sensory information
		G	Kinetic (motor) information
		H	Cognitive information
		J	Higher brain function measurement
		K	Brain information processing
		L	Brain function operation
		M	Brain machine interface
1107	Fusional social brain science	A	Communication
		B	Human interaction
		C	Social behavior
		D	Development and education
		E	Sensibility, affectivity and emotion
		F	Values, reward and punishment
		G	Motivation
		H	Neuroeconomics and neuromarketing
		J	Political brain science

Discipline: Laboratory animal science

Item Number	Research Field	Keyword	
1201	Laboratory animal science	A	Environmental facilities
		B	Infectious diseases
		C	Cryopreservation
		D	Biosafety
		E	Disease models
		F	Breeding genetics
		G	Developmental engineering
		H	Laboratory animal welfare
		J	Animal experiment technology
		K	Bioresource research

Discipline: Biomedical engineering

Item Number	Research Field	Screening Sub-panel Number / Keyword	
1301	Biomedical engineering/ Biological material science	A	Biomedical engineering
		A	Biomedical image
		B	Physiome and biosystem
		C	Bioinformation and instrumentation
		D	Biomechanics
		E	Artificial organs, regenerative medicine
		F	Biological properties
		G	Biomedical control and therapy
		H	Biomedical optical engineering, thermal engineering
		J	Medical micromachines, nanomachines
		K	Nanobiology, nanomedicine
		L	Bioimaging
		B	Biomaterial science
		M	Biomaterials
		N	Biofunctional materials
		P	Cell/Tissue engineering
		Q	Biocompatible materials/Biosuitable materials
		R	Intelligent materials
		S	Bioconjugate materials
		T	Materials for regenerative medicine and engineering
		U	Drug delivery system
		V	Nano-biomaterials
1302	Medical systems	A	Medical ultrasonics
		B	Medical imaging system
		C	Laboratory examination system
		D	Minimally invasive treatment system
		E	Remote diagnosis and treatment system
		F	Organ preservation and treatment system
		G	Medical information system
		H	Computational surgery
		J	Medical robotics
1303	Rehabilitation science/ Welfare engineering	A	Rehabilitation science
		A	Rehabilitation medicine
		B	Disability science
		C	Physical therapy
		D	Occupational therapy science
		E	Speech language and hearing therapy
		F	Social welfare and health science
		G	Artificial sensory organs
		H	Gerontology
		J	Clinical psychotherapy
		B	Welfare engineering
		K	Engineering for health and welfare
		L	Technology for activities of daily living
		M	Preventive care/Assistive technology
		N	Normalization
		P	Barrier-free system
		Q	Universal design
		R	Robotics for welfare and nursing care
		S	Technology for substituting biological function
		T	Technical aid
		U	Human interface

Discipline: Health/Sports science

Item Number	Research Field	Screening Sub-panel Number / Keyword		
1401	Physical education	A		Developmental mechanisms and the body works
			A	Educational physiology
			B	Physical systems science
			C	Biological information analysis
			D	Higher brain function science
			E	Physical growth developmental science
			F	Sensory and motor development studies
		B		Mental and physical education and culture
			G	Aesthetic education
			H	Physical environment theory
			J	Kinetic theory of leadership
			K	Pedagogy of physical education
			L	Fitness
			M	Cultural theories of physical movement
			N	Philosophy of the body
			P	Life and death education
			Q	Psychology of physical education
			R	Affective science
			S	Outdoor education
			T	Dance education
			U	Girls gymnastics
			V	Adult life stage elderly gymnastics
			W	Martial arts theory
			X	Motion adaptation life science
1402	Sports science	A		Sports science
			A	Sports philosophy
			B	Sports history
			C	Sports psychology
			D	Sports science management
			E	Sports pedagogy
			F	Training science
			G	Sports biomechanics
			H	Coaching
			J	Sports talent
			K	Sports for the disabled
			L	Sports sociology
			M	Sports environment
			N	Cultural anthropology of sport
		B		Medical and sport sciences
			P	Sports physiology
			Q	Sports biochemistry
			R	Sports nutrition
			S	Energy metabolism
			T	Exercise and training
			U	Sports disorders
			V	Doping
1403	Applied health science	A		Health education/Health promotion activities
			A	Health education
			B	Health promotion
			C	Safety propulsion/Safety education
			D	Pedagogy of health education
			E	Stress management
			F	Smoking/Drug abuse prevention education
			G	School health
			H	AIDS and sex education
			J	Health management
			K	Health information
			L	Nutritional guidance
			M	Physical and mental health
			N	Leisure/Recreation
		B		Applied medical health
			P	Lifestyle diseases
			Q	Exercise prescription and exercise therapy
			R	Aging
			S	Sports medicine
			T	Sports immunology

Discipline: Human life science

Item Number	Research Field	Screening Sub-panel Number / Keyword		
1501	General human life sciences	A		Home economy
			A	Family finance and home management
			B	Family relations
			C	Lifestyle
			D	Consumer purchasing activities/Life information
			E	Human life and culture
			F	Life of the aged persons
			G	Care for aged and disabled persons
			H	Livelihood culture
			J	Home economics education
		B		Clothing and dwelling life
			K	Clothing life
			L	Clothing enviornment
			M	Living and lifestyle
			N	Living environment
			P	Life material
			Q	Living design/Living goods
1502	Eating habits, studies on eating habits	A		Food and cooking
			A	Cooking and processing
			B	Food storage
			C	Sensory evaluation
			D	Food materials
			E	Cooking and functional constituent
			F	Food service
			G	Food culture
			H	Texture
			J	Food item and mastication
		B		Diet and health
			K	Health and dietary life
			L	Diet and nutrition
			M	Dietary education
			N	Dietary habits
			P	Dietary behavior
			Q	Dietary information
			R	Special nutritious food
			S	Food and environment
			T	Diet plan
			U	Family and dietary life
			V	Diet evaluation
			W	Food management

Discipline: Science education/Educational technology

Item Number	Research Field	Screening Sub-panel Number / Keyword		
1601	Science education	1	A	Natural science education (mathematics, science, earth science physical chemical biological information)
			B	Engineering education
		2	C	Understanding nature
			D	Social awareness of science
			E	Science literacy
			F	Experiment/Observation
			G	Science education curriculum
			H	Environmental education
			J	Industrial technology education
			K	Science higher education
			L	History of science and technology education
			M	Science and sociocultural
			N	Science and technology policy
			P	Teacher education/Science communicator
1602	Educational technology	1	A	Curriculum/Pedagogy development
			B	Teaching-learning support systems
			C	Distributed collaborative learning system
			D	Human interface
		2	E	Instructional materials information system
			F	Utilization of media
			G	Distance education
			H	E-learning
			J	Computer literacy
			K	Media education
			L	Learning environment
			M	Teacher's education
			N	Classroom instruction

Discipline: Sociology/History of science and technology

Item Number	Research Field		Keyword
1701	Sociology/ History of science and technology	A	Sociology of science
		B	Bioethics
		C	History of science
		D	History of technology
		E	Medical history
		F	Industrial archaeology
		G	Philosophy of science/Theory of science
		H	Science, technology and society

Discipline: Cultural property science

Item Number	Research Field		Keyword
1801	Cultural property science	A	Dating methods
		B	Material analysis
		C	Production technique
		D	Conservation science
		E	Archaeological prospection
		F	Plants and animal bodies/Human remains
		G	Cultural property/Cultural heritage
		H	Cultural resources
		J	Cultural property policy

Discipline: Museology

Item Number	Research Field		Keyword
1851	Museology	A	Museum Informatics
		B	Museum Education, Museum Pedagogy
		C	Museum Information Systems, Museum Informatics
		D	Museum Business Management
		E	Public Financial and Administration of Museums
		F	Museum Material Resources
		G	History of Museology

Discipline: Geography

Item Number	Research Field		Keyword
1901	Geography	A	Geography in general
		B	Land use/Landscape
		C	Environmental system
		D	Regional planning
		E	Geography education
		F	Regional geography
		G	Geomorphology
		H	Climatology
		J	Hydrology
		K	Cartography
		L	Geographic information system
		M	Remote sensing

Discipline: Oncology

Item Number	Research Field		Keyword
1951	Carcinogenesis	A	Genome instability
		B	Epigenetics
		C	Cancer genome analysis
		D	Chemical carcinogenesis
		E	Radiation carcinogenesis
		F	Viral carcinogenesis
		G	Bacterial infection and carcinogenesis
		H	Inflammation and cancer
		J	Laboratory animal models
		K	Genetically-modified animals

（Discipline: Oncology）

Item Number	Research Field		Keyword
1952	Tumor biology	A	Oncogene
		B	Tumor suppressor gene
		C	Signalling and gene expression
		D	DNA replication
		E	Cell cycle
		F	Cancer and heredity
		G	Apoptosis
		H	Cell polarity
		J	Cell adhesion and movement
		K	Invasion
		L	Metastasis
		M	Characteristics of cancer cells
		N	Cancer microenvironment
		P	Angiogenesis
		Q	Lymphangiogenesis
		R	Stem cells
		S	Cellular senescence
		T	Cellular immortalization
1953	Tumor immunology	A	Humoral immunity
		B	Cell immunity
		C	Antibody therapy
		D	Immunotherapy
		E	Vaccine therapy
		F	Cell therapy
		G	Cytokine
		H	Immunosuppression
		J	Immune activation
1954	Tumor diagnosis	A	Genome analysis
		B	Proteomics analysis
		C	Expression analysis
		D	Individuality diagnosis of cancer
		E	Order-made medical treatment
		F	Drug efficacy and calculation
		G	Biomarkers
		H	Tumor markers
		J	Molecule imaging
		K	Epigenome
		L	miRNA
		M	Functional RNA
1955	Clinical oncology	A	Antitumor substance research and chemical biology
		B	Chemotherapy
		C	Molecular target therapy
		D	Endocrine therapy
		E	Drug delivery
		F	Physical therapy
		G	Gene therapy
		H	Nucleid acid therapy
		J	Cell therapy
1956	Cancer epidemiology and prevention	A	Biobank
		B	Ethnoepidemiology
		C	Cohort study
		D	Gene-environment interaction
		E	Preventive intervention study
		F	Chemoprevention
		G	Interface between cancer study and society

Area: New multidisciplinary fields

Discipline: Environmental science

Item Number	Research Field	Screening Sub-panel Number / Keyword
2001	Environmental dynamic analysis	A Environmetnal change
		B Biolgeochemocal cycle
		C Environmental measurements
		D Environmental model
		E Environmental information
		F Global warming
		G Global change of water cycle
		H Environmental monitering of the polar regions
		J Chemical oceanography
		K Biological oceanography
2002	Environmental impact assessment/ Environmental policy	A Environmental impact assessment
		A Terrestrial, aquatic, and atmospheric impact assessment
		B Impact assessment on ecosystem
		C Impact assessment methods
		D Impact assessment on human health
		E Environmental impact assessment for the future generation
		F Human activities in polar regions
		B Environmental policy
		G Environmental philosophy
		H Environmental economics
		J Environmental management
		K Environmental activities
		L Environment and society
		M Consensus forming
		N Environmental safety and security
2003	Risk sciences of radiation/ Chemicals	A Risk science of radiation
		A Environmental radiation
		B Protection
		C Basic process
		D Dosimetry assessment
		E Damage
		F Response
		G Repair
		H Sensitivity
		J Impact on life
		K Risk assessment
		B Risk science of chemicals
		L Toxicology
		M Toxic substance to human
		N Estimation of trace chemicals pollution
		P Endocrine disrupting substances
2004	Environmental technology/ Environmental materials	A Environmental technology
		A Enviornmental conservation technology
		B Environmental restoration technology
		C Resource conservation technology
		D Energy conservation technology
		E Recycling technology
		F Reduction technology of enviornmental impact
		B Environmenal materials
		G Circular material design
		H Circulation and processing
		J Production system of circular materials
		K Human living environment
		L Green chemistry
		M Ecology and environment

Discipline: Quantum beam science

Item Number	Research Field	Screening Sub-panel Number / Keyword
2051	Quantum beam science	A Development of accelerator elemental technology
		B Synchrotron light
		C Neutron
		D Muon
		E Electron・positron
		F Laser
		G Neutrino
		H Ion beam
		J Proton beam
		K Methodology
		L Data processing・analysis
		M Industrial application
		N Medical application
		P Technology of compact quantum beam generator

Discipline: Nano/Micro science

Item Number	Research Field	Screening Sub-panel Number / Keyword
2101	Nanostructural science	A Chemical system
		A Nanostructural chemistry
		B Cluster/Fine particle
		C Nano/Microreaction field
		D Single molecule manipulation
		E Hierarchical structure/Superstructure
		F Surface/Interface nanostructure
		G Self-assembly
		B Physical system
		H Nanostructure properties
		J Mesoscopic physics
		K Nanoprobes
		L Quantum information
		M Nanotribology
2102	Nanomaterials/ Nanobioscience	A Nanomaterials
		A Creation of nanomaterials
		B Analysis and characterization of nanomaterials
		C Nanosurface/Nanointerface
		D Functional nanomaterials
		E Nanometrology
		F Formation/Control of nanostructures
		G Molecular devices
		H Nanoparticle/Nanotubes
		J Single-molecule science
		B Nanobioscience
		K DNA devices
		L Nano synthesis
		M Molecular manipulation
		N Biochip
		P Single-molecule biochemistry and physiology
		Q Single-molecule bioinformation science
		R Single-molecule science
		S Single-molecule imaging/Nanometrology
		T Genomic engineering
2103	Microdevices/ Nanodevices	A Microdevices/Micromachines
		A Microelectromechanical systems/ Nanoelectromechanical systems (MEMS/NEMS)
		B Microfabrication
		C Micro-optical devices
		D Microchemical systems
		E Micro biosystems
		F Micromechanics
		G Microsensors
		B Nanodevices
		H Nanostructure fabrication
		J Self-assembly
		K Nanoparticle
		L Quantum dot
		M Carbon nanotube
		N Control of nano-properties
		P Quantum effect
		Q Nanoelectronic devices
		R Nano-optical devices
		S Spin devices
		T Molecular devices
		U Single-quantum devices
		V Nanomachines

Discipline: Social/Safety system science

Item Number	Research Field	Screening Sub-panel Number / Keyword	
2201	Social systems engineering/ Safety system	A	Social systems engineering
		A	Social engineering
		B	Social system
		C	Policy science
		D	Development planning
		E	Management engineering
		F	Management system
		G	Operations research
		H	Quality control
		J	Industrial engineering
		K	Modeling
		L	Logistics
		M	Marketing
		N	Finance
		P	Project management
		Q	Environmental management
		B	Safety system
		R	Safety system
		S	Safety engineering
		T	Crisis management
		U	Urban and social disaster prevention
		V	Fire/Accident
		W	Safety information/Environmental preparation
		X	Community resistance to disaster (evacuation, panic, communication, hazard map)
		Y	Reliability engineering
2202	Natural disaster science	A	Earthquake and volcano disaster mitigation
		A	Seismic motion
		B	Liquefaction
		C	Active fault
		D	Tsunami
		E	Volcanic eruption
		F	Volcanic ejecta/Debris flow
		G	Seismic hazard
		H	Volcanic hazard
		J	Damage prediction/Analysis/Mitigation measures
		K	Disaster mitigation and buildings
		B	Natural disasters
		L	Meteorological disasters
		M	Hydrological disasters
		N	Geo-hazard
		P	Landslide
		Q	Drought
		R	Snow and ice disasters
		S	Natural disaster prediction/Analysis/Measures
		T	Lifeline disaster prevention
		U	Local disaster preparedness plan and policy
		V	Rehabilitation and reconstruction engineering
		W	Disaster risk assessment

Discipline: Genome science

Item Number	Research Field	Keyword	
2301	Genome biology	A	Genome structural diversity
		B	Animal genome
		C	Plant genome
		D	Microbial genome
		E	Bacterial flora genome
		F	Organelle genome
		G	Genome evolution
		H	Genome architecture
		J	Genome maintenance and restoration
		K	Genome function expression
		L	Gene expression regulation
		M	Transcriptome
		N	Proteome
		P	Metabolome
		Q	Epigenome
		R	Genome database
		S	Comparative genome

（Discipline: Genome science）

Item Number	Research Field	Keyword	
2302	Medical genome science	A	Disease-associated gene
		B	Personalized medicine
		C	Gene diagnosis
		D	Human genome diversity
		E	Genome medicine
		F	Regenerative medicine
		G	Genome-wide association study
		H	Human genome resquencing
		J	Genome of model animals
		K	Disease epigenomics
		L	Human population genetics
		M	Statistical genetics
		N	Medical informatics
2303	System genome science	A	Gene networks
		B	Protein networks
		C	Metabolic networks
		D	Development and differentiation
		E	Synthetic biology
		F	Database biology
		G	Modeling and simulation
		H	Bioinformatics
		J	Database integration
		K	Genome analysis technology
		L	Functional RNA
		M	Epigenome control
2304	Applied genomics	A	Industrial genome sciences
		A	Industrial animal genome
		B	Industrial plant genome
		C	Bacterial flora in humans and animals
		D	Industrial microorganism genome
		E	Marker breeding
		F	Genome bioengineering
		B	Environmental genome sciences
		G	Environmental genome
		H	Metagenome
		J	Genome and symbiosis
		K	Biodiversity
		L	Conservation of species
		M	Genetic resource
		N	Biological database

Discipline: Living organism molecular science

Item Number	Research Field	Keyword	
2401	Living organism molecular science	A	Natural product organic chemistry
		B	Secondary metabolite
		C	Searching bioactive molecules
		D	Chemical modification of biomolecules
		E	Biological function related substance
		F	Molecular mechanism of activity expression
		G	Biosynthesis
		H	Design and synthesis of bioactive molecule
		J	Combinatorial chemistry
		K	Chemical ecology
		L	Proteomics
2402	Chemical biology	A	in vivo functional expression
		B	searching medicines
		C	searching diagnosis chemicals
		D	searching agricultural chemicals
		E	chemical library
		F	structure-activity relationship
		G	diversity-oriented organic synthesis
		H	bioprobe
		J	molecular imaging
		K	biomolecule measurements
		L	intracellular chemical reactions

Discipline: Resource conservation science

Item Number	Research Field		Keyword
2501	Resource conservation science	A	Conservation biology
		B	Biodiversity conservation
		C	Conservation of biological strains
		D	Conservation of genetic resources
		E	Ecosystem conservation
		F	Native species conservation
		G	Seed conservation
		H	Cell/Tissue preservation
		J	Microbial culture collections

Discipline: Area studies

Item Number	Research Field		Keyword
2601	Area studies	A	Europe
		B	Russia/Slavic area
		C	North America
		D	Central and South America
		E	East Asia
		F	Southeast Asia
		G	South Asia
		H	West Asia/Central Asia
		J	Africa/African history
		K	Oceania/Oceanian history
		L	Global studies
		M	Cross-regional comparative studies
		N	Aid/Regional cooperation

Discipline: Gender

Item Number	Research Field		Keyword
2701	Gender	A	Gender differences/Gender roles
		B	Sexuality
		C	Social thought/Social movements/History
		D	Law/Politics
		E	Economy/Work
		F	Social policy/Social welfare
		G	Body/Expression/Media
		H	Science and technology/Medicine/Life
		J	Education/Human development
		K	Development
		L	Violence/Sex workers
		M	Cross-cultural comparison
		N	Women's studies/Men's studies/Queer studies

Category: Humanities and Social Sciences

Area: Humanities

Discipline: Philosophy

Item Number	Research Field		Keyword
2801	Philosophy/ Ethics	A	Principles of philosophy/Specific theories of philosophy
		B	Principles of ethics/Specific theories of ethics
		C	Western philosophy
		D	Western ethics
		E	Japanese philosophy
		F	Japanese ethics
		G	Comparative philosophy
		H	Philosophy of religion
2802	Chinese philosophy	A	Chinese philosophy/Thought
		B	Chinese Buddhism
		C	Taoism
		D	Confucianism
2803	Indian philosophy/ Buddhist studies	A	Indian philosophy/Thought
		B	Buddhist studies/History of Buddhism
2804	Religious studies	A	Religious studies in general
		B	History of religions
		C	Sociology of religion
		D	Philosophy of religion
		E	Comparative study of religion
2805	History of thought	A	History of Western thought
		B	History of Eastern and Japanese thought
		C	Comparative history of thought
		D	History of religious thought
		E	History of social thought
		F	History of political thought
		G	History of scientific thought
		H	History of art theory
2806	Aesthetics/ Art history	A	Aesthetics
		B	Art history

Discipline: The arts

Item Number	Research Field		Keyword
2851	Study of the arts/History of the arts/Arts in general	A	Musicology
		B	Theory of arts
		C	Various studies on arts
		D	Culture and representation
		E	Popular arts
		F	Arts and cultural policy

Discipline: Literature

Item Number	Research Field		Keyword
2901	Japanese literature	A	Japanese literature in general
		B	Ancient literature (Nara and Heian periods)
		C	Medieval literature (Kamakura and Muromachi periods)
		D	Premodern literature (Edo period)
		E	Modern and contemporary literature (after Meiji Restoration)
		F	Kanbungaku (Chinese literature in Japan)
		G	Bibliography/Philology
		H	Literary criticism/Literary theory
2902	Literature in English	A	English literature
		B	American literature
		C	Other literatures in English
		D	Bibliography/Philology
		E	Literary criticism/Literary theory
		F	Comparative literature

(Discipline: Literature)

Item Number	Research Field		Keyword
2903	European literature (English literature excluded)	A	French literature
		B	German literature
		C	Russian and East European literature
		D	Other European literatures
		E	Western classics
		F	Bibliography/Philology
		G	Literary criticism/Literary theory
		H	Comparative literature
2904	Literatures/ Literary theories in other countries and areas	A	Chinese literature
		B	African literature
		C	Southeast Asian literature
		D	Other literatures
		E	Bibliography/Philology
		F	Literary criticism/Literary theory
		G	Comparative literature

Discipline: Linguistics

Item Number	Research Field	Screening Sub-panel Number		Keyword
3001	Linguistics	1	A	Phonetics
			B	Phonology
			C	Morphology
			D	Syntax
			E	Semantics
			F	Pragmatics
			G	Discourse analysis
			H	Scripts and orthography
			J	Lexicography
		2	K	Sociolinguistics
			L	Psycholinguistics
			M	Biolinguistics
			N	Historical linguistics
			P	French linguistics
			Q	German linguistics
			R	Chinese linguistics
			S	Other languages
			T	Endangered and minority languages
3002	Japanese linguistics		A	Phonetics/Phonology
			B	Grammar
			C	Morphology, Semantics
			D	Writing systems
			E	Stylistics
			F	Dialect
			G	Language in daily life
			H	History of the Japanese language
			J	History of Japanese linguistics
3003	English linguistics		A	Phonetics/Phonology
			B	Grammar
			C	Morphology, Semantics
			D	Stylistics
			E	History of the English language
			F	History of English linguistics
			G	Diversity of the English language
3004	Japanese language education		A	Systems of Japanese language education/ Language policy
			B	Theories on qualified teachers/ Classroom research
			C	Teaching methods/Curriculum planning
			D	Theory of second language acquisition
			E	Educational technology/Teaching materials/Educational media in general
			F	Mother tongue retention/Bilingual education
			G	Cross-cultural understanding and communication
			H	Japanese affairs
			J	History of Japanese language education
			K	Educational testing and evaluation

(Discipline: Linguistics)

Item Number	Research Field	Screening Sub-panel Number / Keyword		
3005	Foreign language education	1	A	Systems of foreign language education
			B	Theory of foreign language education/History of foreign language education
			C	Teaching methods/Curriculum planning
			D	Theory of second language acquisition
			E	Educational technology/Teaching materials/Educational media in general
			F	e-Learning/Computer-assisted language learning
			G	Cross-cultural communication
			H	Educational testing and evaluation
			J	Training of foreign language teachers
		2	K	English language education in general
			L	Early English education

Discipline: Human geography

Item Number	Research Field	Keyword	
3201	Human geography	A	History of geography/Methodology
		B	Economic geography/Transportation geography
		C	Political geography/Social geography
		D	Cultural geography
		E	Urban geography
		F	Rural geography
		G	Historical geography
		H	Regional environment/Natural hazards
		J	Geography education
		K	Regional planning/Regional policy
		L	Regional geography
		M	Geographic information system
		N	History of cartography

Discipline: History

Item Number	Research Field	Keyword	
3101	Historical studies in general	A	World history
		B	History of cultural exchange
		C	Comparative history
		D	Comparative study of civilizations
		E	Study of historical materials
		F	Globalization
3102	Japanese history	A	Ancient history (Nara and Heian periods)
		B	Medieval history (Kamakura and Muromachi periods)
		C	Early modern history (Edo period)
		D	Modern and contemporary history (after Meiji Restoration)
		E	Local history
		F	Cultural history
		G	History of cultural and diplomatic exchange
		H	Japanese history in general
		J	Research in historical materials
3103	Asian history	A	Chinese history: Ancient, medieval, and early modern period
		B	Modern and contemporary Chinese history
		C	East Asian history
		D	Southeast Asian history
		E	South Asian history
		F	West Asian/Islamic history
		G	Central Eurasian history
		H	Comparative history/History of cultural and diplomatic exchange
3104	History of Europe and America	A	Ancient European history
		B	Medieval European history
		C	Modern and contemporary West European history
		D	Modern and contemporary East European history
		E	Modern and contemporary South European history
		F	Modern and contemporary North European history
		G	North and South American history
		H	Research in historical materials
		J	Comparative history/History of cultural and diplomatic exchange
3105	Archaeology	A	Archaeology in general
		B	Prehistoric studies
		C	Historical archaeology
		D	Japanese archaeology
		E	Asian archaeology
		F	Study of ancient civilizations
		G	Study of material culture
		H	Experimental archaeology
		J	Research in buried cultural assets
		K	Archaeological informatics

Discipline: Cultural anthropology

Item Number	Research Field	Keyword	
3301	Cultural anthropology/ Folklore	A	Cultural anthropology
		B	Folklore
		C	Ethnography
		D	Social anthropology
		E	Comparative folklore
		F	Material culture
		G	Prehistoric period/Historic period
		H	Arts/Performing arts
		J	Religion/Rituals
		K	Development/Aid
		L	Gender
		M	Health care
		N	Population/Emigration
		P	Minority
		Q	Ecology/Natural environment
		R	Media

Area: Social sciences

Discipline: Law

Item Number	Research Field		Keyword
3401	Fundamental law	A	Legal philosophy/Legal theory
		B	Roman law
		C	Legal history
		D	Sociology of law
		E	Comparative law
		F	Foreign law
		G	Law and policy
		H	Law and economics
3402	Public law	A	Constitutional law
		B	Administrative law
		C	Tax law
		D	Constitutional theory
		E	Legislative studies
		F	Constitutional litigation
		G	Comparative constitutional law
		H	Constitutional history
		J	Administrative organization law
		K	Administrative procedure
		L	Administrative remedies
		M	International tax law
		N	Judicial law
3403	International law	A	Public international law
		B	Private international law
		C	International human rights law
		D	Law of international organizations
		E	International economic law
		F	Nationality law
		G	International civil procedure
		H	International trade law
3404	Social law	A	Labor law
		B	Economic law
		C	Social security law
		D	Education law
3405	Criminal law	A	Criminal law
		B	Criminal procedure
		C	Criminology
		D	Criminal justice policy
		E	Juvenile law
3406	Civil law	A	Civil law
		B	Commercial law
		C	Civil procedure
		D	Legal person
		E	Business corporate law
		F	Financial law
		G	Securities law
		H	Insurance law
		J	International trade law
		K	Insolvency law
		L	Alternative dispute resolution
		M	Civil execution law
3407	New fields of law	A	Environmental law
		B	Medical law
		C	Imformation law
		D	Intellectual property law
		E	EU law
		F	Law and gender
		G	Legal education/Legal theory

Discipline: Politics

Item Number	Research Field		Keyword
3501	Politics	A	Political theory
		B	History of political thought
		C	Political history
		D	Japanese politics
		E	Political process
		F	Electoral studies
		G	Public administration
		H	Comparative politics
		J	Public policy
3502	International relations	A	Theory of international relations
		B	Diplomatic history/International history
		C	Foreign policy
		D	International security
		E	International political economy
		F	International cooperation (including theories of international regime and international integration)
		G	Transnational issues
		H	Global issues

Discipline: Economics

Item Number	Research Field		Keyword
3601	Economic theory	A	Microeconomics
		B	Game theory
		C	Macroeconomics
		D	Economic theory
		E	Political economy
3602	Economic doctrine/ Economic thought	A	Economic doctrine
		B	History of economics
		C	Economic thought
		D	History of economic thought
		E	Social thought
		F	History of social thought
3603	Economic statistics	A	Statistical system
		B	Statistical research
		C	History of statistics
		D	History of statistical theory
		E	Population statistics
		F	Income/Wealth distribution
		G	National accounts
		H	Econometrics
3604	Applied economics	A	International economics
		B	Labor economics
		C	Theory of industry
		D	Industrial organization
		E	Urban economics
		F	Environmental economics
		G	Health economics
		H	Regional economics
3605	Economic policy	A	Economic policy
		B	Economic affairs
		C	Japanese economy
		D	Social security
		E	Economic system
		F	Economic development
		G	Policy simulation
3606	Public finance/ Monetary economics	A	Public finance
		B	Public economics
		C	Monetary economics
		D	Finance
		E	International monetary theory
3607	Economic history	A	Economic history
		B	Business history
		C	Industrial history

Discipline: Business administration

Item Number	Research Field	Screening Sub-panel Number / Keyword		
3701	Business administration	1	A	Corporate management
			B	Administrative organization
			C	Managerial finance
			D	Management information
		2	E	Business administration
			F	Corporate strategy
			G	International management
			H	Human resource management
			J	Management of technology
			K	Corporate social responsibility
			L	Business ventures
3702	Commerce		A	Marketing
			B	Consumer behavior
			C	Distribution
			D	Commerce
			E	Insurance
3703	Accounting		A	Financial accounting
			B	Managerial accounting
			C	Auditing
			D	Bookkeeping
			E	International accounting
			F	Tax accounting
			G	Governmental accounting
			H	Environmental accounting

Discipline: Sociology

Item Number	Research Field	Screening Sub-panel Number / Keyword		
3801	Sociology	1	A	Social philosophy/Social thought
			B	History of sociology
			C	General theory
			D	Sociological methodology
			E	Social research
			F	Mathematical sociology
			G	Social interaction/Social relations
			H	Social group/Social organization
			J	Institutions/Structure/Social change
			K	Knowledge/Science/Technology
			L	Politics/Power/State
			M	Body/Ego/Identity
		2	N	Family/Kinship/Population
			P	Community/Village/City
			Q	Industry/Labor/Leisure
			R	Class/Stratification/Social mobility
			S	Culture/Religion/Social consciousness
			T	Communication/Information/Media
			U	Gender/Generation
			V	Education/School
			W	Medical care/Welfare
			X	Social problems/Social movements
			Y	Discrimination/Social exclusion
			Z	Environment/Pollution
			a	International community/Ethnicity
3802	Social welfare and social work studies		A	Principles of social welfare/Social welfare theory
			B	Social welfare ideology/Social welfare history
			C	Social security/Social welfare policy
			D	Social work
			E	Poverty/Social exclusion/Discrimination
			F	Child welfare/Family welfare/Women's welfare
			G	Social welfare for disabled persons
			H	Social welfare for aged persons
			J	Community welfare/Community social work
			K	Social work in health care/Care work
			L	School social work/Forensic social work
			M	Welfare management/Advocacy/Evaluation
			N	International welfare/Welfare NGOs
			P	Volunteer/Nonprofit social welfare agencies
			Q	Social welfare education/Field instruction

Discipline: Psychology

Item Number	Research Field	Keyword	
3901	Social psychology	A	Self-process
		B	Social cognition/Emotion
		C	Attitude/Belief
		D	Social interaction/Interpersonal relations
		E	Interpersonal communication
		F	Group/Leadership
		G	Collective phenomena
		H	Industry/Organization
		J	Culture
		K	Social issues
		L	Environmental issues
		M	Media/Electronic network
		N	Personnel
		P	Work
		Q	Consumer affairs
3902	Educational psychology	A	Lifelong development
		B	Parent-child relationship
		C	Developmental disabilities
		D	Personality
		E	Learning process
		F	Teaching method
		G	Classroom group/Management
		H	Educational evaluation
		J	Educational counseling
		K	Counseling
		L	Student counseling
3903	Clinical psychology	A	Psychological disorder
		B	Crime/Delinquency
		C	Psychological assessment
		D	Psychotherapy
		E	Psychological intervention
		F	Psychological tests
		G	Self-control
		H	Psychological interviewing process
		J	Case study
		K	Self-help group
		L	Therapist's theory
		M	Community support
		N	Health development
		P	Rehabilitation psychology
		Q	Health psychology
3904	Experimental psychology	A	Physiology
		B	Sensation/Perception
		C	Attention
		D	Learning/Behavior analysis
		E	Memory
		F	Thinking
		G	Language
		H	Motivation
		J	Emotion
		K	Behavior
		L	Data analysis method
		M	Consciousness
		N	Principle/History

Discipline: Educaion

Item Number	Research Field	Screening Sub-panel Number / Keyword		
4001	Educaion	1	A	Philosophy of education
			B	Educational thought
			C	History of education
			D	Curriculum theory
			E	Instructional theory
			F	Academic achievement theory
			G	Educational methods
			H	Educational evaluation
		2	J	Administration and finance of education
			K	School management
			L	School education
			M	Early childhood education/Child-care
			N	Lifelong learning
			P	Adult and community education
			Q	Education at home
			R	Education policy
4002	Sociology of education		A	Sociology of education
			B	Economics of education
			C	Anthropology of education
			D	Education policy
			E	Comparative education
			F	Human resource development/Development education
			G	School system/School culture
			H	Teacher/Student culture
			J	Youth problems
			K	Academic achievement problem
			L	Multicultural education
			M	Gender and education
			N	Education survey method
			P	Educational information system
4003	Education on school subjects and activities	1	A	Education of individual subjects (Japanese, mathematics, science, social studies, geography/History, civics, life environmental studies, music, art, home economics, technology, English, information)
			B	Education of vocational/Professional subject (industry, bussiness, agriculture, fishery, nursing, welfare)
		2	C	Curriculum composition/development
			D	Materials development
			E	Education excluding subject (global learning, moral, special activities)
			F	Guidance
			G	Career education
4004	Special needs education		A	Education for children with disabilities
			B	Special needs education
			C	Nursing for infants with disabilities
			D	Special needs nursing
			E	Inclusion
			F	Schools for special needs education
			G	Classes for special needs education
			H	Resource room education
			J	Special educational needs
			K	Learning difficulty
			L	Intellectual disabilities
			M	Developmental disabilities
			N	Physical disorders
			P	Mental disorder
			Q	Disease/Illness
			R	Behavioral disabilities
			S	Severe multiple disabilities
			T	Parenting difficulties/Abuse
			U	School maladjustment
			V	Educational counseling

Category: Science and Engineering

Area: Mathematical and physical sciences

Discipline: Mathematics

Item Number	Research Field	Screening Sub-panel Number / Keyword		
4101	Algebra	1	A	Number theory
			B	Group theory
			C	Arithmetic geometry
			D	Representation theory of groups
			E	Lie algebra theory
			F	Algebraic combinatorics
			G	Algebraic analysis
		2	H	Algebraic geometry
			J	Ring theory
			K	General algebra
4102	Geometry		A	Differential geometry
			B	Complex manifold
			C	Topology
			D	Complex analytic geometry
			E	Differential topology
4103	General mathematics (including Probability theory/ Statistical mathematics)		A	Foundation of mathematics
			B	Probability theory
			C	Mathematical statistics
			D	Applied mathematics
			E	Combinatorics
			F	Mathematics in information science
			G	Discrete mathematics
			H	Computational mathematics
			J	Mathematical model
			K	Self-assembly
4104	Basic analysis		A	Complex analysis
			B	Real analysis
			C	Functional equation
			D	Functional analysis
			E	Stochastic analysis
			F	Algebraic analysis
4105	Global analysis		A	Global theory of functional equation
			B	Calculus of variations
			C	Nonlinear phenomena
			D	Analysis on manifold
			E	Dynamical system
			F	Operator algebra
			G	Integrable system

Discipline: Astronomy

Item Number	Research Field	Keyword	
4201	Astronomy	A	Optical/Infrared astronomy
		B	Radio astronomy
		C	Solar physics
		D	Astrometry
		E	Theoretical astronomy
		F	X-ray/γ-ray astronomy

Discipline: Physics

Item Number	Research Field	Screening Sub-panel Number / Keyword		
4301	Particle/ Nuclear/ Cosmic ray/ Astro physics	1	A	Particle physics (theory)
			B	Nuclear physics (theory)
			C	Cosmic ray (theory)
			D	Astrophysics (theory)
			E	Relativity/Gravitation (theory)
		2	F	Particle physics (experiment)
			G	Nuclear physics (experiment)
			H	Cosmic ray (experiment)
			J	Astrophysics (experiment)
			K	Relativity/Gravitation (experiment)
			L	Accelerator technology
			M	Particle detectors
4302	Condensed matter physics I		A	Semiconductors
			B	Mesoscopic system/Localization
			C	Optical properties
			D	Surface/Interface
			E	Crystal growth
			F	Dielectrics
			G	Lattice defects
			H	X-ray/Particle beam
			J	Phonon properties

(Discipline: Physics)

Item Number	Research Field	Screening Sub-panel Number / Keyword		
4303	Condensed matter physics II	1	A	Magnetism
			B	Magnetic resonance
		2	C	Strongly-correlated system
			D	High temperature superconductivity
			E	Metal
			F	Ultralow temperature/Condensed quantum system
			G	Superconductivity/Density wave system
			H	Molecular solid/Organic conductor
4304	Mathematical physics/ Fundamental condensed matter physics		A	Statistical physics
			B	Fundamental condensed matter theory
			C	Mathematical physics
			D	Integrable system
			E	Non-equilibrium/Nonlinear physics
			F	Applied mathematics
			G	Dynamics
			H	Fluid physics
			J	Disordered system
			K	Computational physics
4305	Atomic/ Molecular/ Quantum electronics		A	Atom/Molecule
			B	Quantum electronics
			C	Quantum information
			D	Radiation
			E	Beam physics
4306	Biophysics/ Chemical physics		A	Polymer/Liquid crystal
			B	Chemical physics
			C	Biophysics
			D	Soft matter physics

Discipline: Earth and planetary science

Item Number	Research Field	Keyword	
4401	Solid earth and planetary physics	A	Earthquake phenomena
		B	Volcanic phenomena
		C	Crustal movement/Sea floor crustal movement
		D	Geomagnetism
		E	Gravity
		F	Observation methods
		G	Tectonics
		H	Internal structure
		J	Internal variability/physical properties
		K	Solid planets/Satellite/Asteroid
		L	Planet formation and evolution
		M	Exploration of solid planets
		N	Earthquake disasters and prediction
4402	Meteorology/ Physical oceanography/ Hydrology	A	Meteorology
		B	Physical oceanography
		C	Land-area water cycle/Material circulation
		D	Water balance
		E	Global environmental system
		F	Geophysical fluid dynamics
		G	Climatology
		H	Planetary atmospheres
		J	Air-sea interaction
4403	Space and upper atmospheric physics	A	Solar-terrestrial system/Space weather
		B	Solar wind/Interplanetary space
		C	Terrestrial and planetary magnetospheres
		D	Terrestrial and planetary ionospheres
		E	Terrestrial and planetary upper atmospheres
		F	Space plasma
		G	Geomagnetic variation
		H	Plasma waves
4404	Geology	A	Stratum
		B	The earth's crust
		C	Environmental geology
		D	Tectonics
		E	Geologic era
		F	Earth history
		G	Applied geology
		H	Planetary geology
		J	Quaternary research
		K	Geologic hazard

（Discipline: Earth and planetary science）

Item Number	Research Field		Keyword
4405	Stratigraphy/ Paleontology	A	Stratigraphic succession
		B	Paleoenvironment
		C	Fossil
		D	Phylogeny/Evolution/Diversity
		E	Paleoecology
		F	Paleobiogeography
		G	Function/Morphology
		H	Paleo-ocean
4406	Petrology/ Mineralogy/ Science of ore deposit	A	Terrestrial and planetary material
		B	Terrestrial and planetary evolution
		C	Crust/Mantle/Core
		D	Magma/Igneous rock
		E	Metamorphic rock
		F	Natural and artificial crystals
		G	Element fractionation
		H	Mineral resources
		J	Ore deposit formation
		K	Mineral physics
		L	Biologic and environmental minerals
4407	Geochemistry/ Astrochemistry	A	Element distribution
		B	Isotope/Radiometric age
		C	Material recycling
		D	Chemistry of the crust and mantle
		E	Chemistry of the extraterrestrial material
		F	Atmospheric and hydrospheric chemistry
		G	Biosphere geochemistry

Discipline: Plasma science

Item Number	Research Field		Keyword
4501	Plasma science	A	Basic studies of plasma
		B	Plasma applications
		C	Plasma diagnostic techniques and instrumentation
		D	Plasma physics
		E	Electric discharges
		F	Reactive plasmas
		G	Space and astrophysical plasmas
		H	Burning plasma
		J	Plasma chemistry
		K	Plasma control/Laser

Area: Chemistry

Discipline: Basic chemistry

Item Number	Research Field		Keyword
4601	Physical chemistry	A	Molecular structure
		B	Crystal structure
		C	Electronic state
		D	Molecular dynamics
		E	Chemical reaction
		F	Reaction dynamics
		G	Cluster
		H	Solution/Colloid
		J	Molecular spectroscopy
		K	Molecular excitation process elementary
		L	Quantum beam
		M	Electron/Energy transfer
		N	Surface/Interface
		P	Theoretical chemistry
		Q	Electrochemistry
		R	Spin chemistry
		S	Biophysical chemistry
4602	Organic chemistry	A	Structural organic chemistry
		B	Organic reaction chemistry
		C	Synthetic organic chemistry
		D	Organoelement chemistry
		E	Organic photochemistry
		F	Physical organic chemistry
		G	Theoretical organic chemistry
4603	Inorganic chemistry	A	Metal complex chemistry
		B	Organometallic chemistry
		C	Inorganic solid-state chemistry
		D	Solution chemistry
		E	Bioinorganic chemistry
		F	Nuclear/Radiochemistry
		G	Cluster
		H	Supramolecular complex
		J	Polynuclear complex
		K	Coordination polymer

Discipline: Applied Chemistry

Item Number	Research Field		Keyword
4701	Analytical chemistry	A	Sample preparation
		B	Chemical analysis
		C	Biological analysis
		D	Chemical analysis by nuclear methods
		E	Separation analysis
		F	Chemical sensors
		G	Chip analysis
		H	Chromatography
		J	Instrumental analysis
		K	Surface and interface analysis
		L	Chemical analysis
		M	Environmental analysis
		N	Bio-material analysis
		P	Biosensors
4702	Synthetic chemistry	A	Selective synthesis/reaction
		B	Complex/Organometallic catalysis
		C	Fine chemicals
		D	Asymmetric synthesis/reaction
		E	Catalyst design/reaction
		F	Environmentally friendly reaction
		G	Reaction field
		H	Automatic synthesis
		J	Biotic synthesis technique
		K	Combinatorial method

(Discipline: Applied Chemistry)

Item Number	Research Field		Keyword
4703	Polymer chemistry	A	Polymer synthesis
		B	Polymer reaction/degradation
		C	Asymmetric polymerization
		D	Polymerization catalyst
		E	Non-covalent polymer
		F	Self-assembled polymer
		G	Polymer structure
		H	Polymer properties
		J	Functional polymer
		K	Bio-related polymer
		L	Polymer thin film/surface
		M	Polymer complex
		N	Environment-related polymer
4704	Functional materials chemistry	A	Optical properties
		B	Electric/Magnetic function
		C	Molecular devices
		D	Sensors
		E	Molecular recognition
		F	Supramolecule
		G	Liquid crystal/Crystal
		H	Film/Assembly
		J	Surface/Interface
		K	Colloid/Ultrafine particle
		L	Electrochemistry
		M	Functional catalysts
4705	Environmental chemistry	A	Green chemistry
		B	Recycle chemistry
		C	Low environmental load substances
		D	Biodegradable substances
		E	High-functional catalysts
		F	Trace environmental substance evaluation
		G	Reaction media
		H	Safety chemistry
		J	Micro-chemical methods
		K	Highly efficient reaction design
4706	Bio-related Chemistry	A	Biofunctional chemistry
		B	Biomacromolecule chemistry
		C	Bioinorganic chemistry
		D	Natural products chemistry
		E	Bioorganic chemistry
		F	Biotechnology
		G	Nucleic acid/Protein/Sugar chemistry
		H	Enzyme chemistry
		J	Biological recognition/Biofunctional chemistry
		K	Post-genomic drug discovery
		L	Biofunctional materials

Discipline: Materials chemistry

Item Number	Research Field		Keyword
4801	Functional materials/ Devices	A	Liquid crystal materials/devices
		B	Organic EL devices
		C	Organic semiconductor devices
		D	Optical materials/devices
		E	Organic electronic materials/devices
		F	Devices for electric conduction
		G	Molecular devices
		H	Electric/Magnetic devices
		J	Battery
		K	Condenser (Capacitor)
		L	Biofunctional applied devices
4802	Organic industrial materials	A	Functional organic materials
		B	Hybrid materials
		C	Surfactant
		D	Dye/Pigment
		E	Dye/Color materilas
		F	Printing/Ink
		G	Resist
		H	Glue
		J	Selective reaction
		K	New functional group

(Discipline: Materials chemistry)

Item Number	Research Field		Keyword
4803	Inorganic industrial materials	A	Crystalline/Polycrystalline materials
		B	Glass
		C	Ceramics
		D	Fine particles/Powder
		E	Layered/Intercalation compound
		F	Ion exchanger/conductor
		G	Inorganic synthesis
		H	Photocatalyst
		J	Electrochemistry
		K	Nanoparticle
		L	Porous materials
		M	Hybrid materials
4804	Polymer/ Textile materials	A	Polymeric material properties
		B	Polymeric material synthesis
		C	Textile materials
		D	Rubber materials
		E	Gel
		F	Polymeric functional materials
		G	Natural/Bioplymeric materials
		H	Polymer alloy
		J	Polymer composites
		K	Polymer/Textile processing
		L	Computational polymer science

Area: Engineering

Discipline: Applied physics

Item Number	Research Field	Keyword	
4901	Applied materials science/ Crystal engineering	A	Metal
		B	Semiconductor
		C	Magnetic material
		D	Superconductor
		E	Amorphous
		F	Dielectric
		G	Ceramics
		H	Crystal growth
		J	Epitaxial growth
		K	Crystal characterization
		L	Heterostructure
		M	Optical properties
		N	Particulate
		P	Organic molecule
		Q	Liquid crystal
		R	New functional materials
		S	Spintronics
		T	Organic/Molecular electronics
		U	Bioelectronics
4902	Thin film/ Surface and interfacial physical properties	A	Thin film
		B	Surface
		C	Interface
		D	Plasma process
		E	Vacuum
		F	Beam application
		G	Scanning probe microscopy
		H	Electron microscopy
4903	Applied optics/ Quantum optical engineering	A	Optics
		B	Optical elements/Instrumentation/Materials
		C	Imaging/Optical information processing
		D	Vision
		E	Quantum electronics
		F	Laser
		G	Nonlinear optics
		H	Quantum optics
		J	Photonic crystals
		K	Opt-electronics
		L	Micro-and nano-optics
		M	Optical sensing
		N	Optical recording
		P	Light control
		Q	Photo-processing
4904	Applied physics, general	A	Force
		B	Heats
		C	Sounds
		D	Waves
		E	Electromagnetism
		F	Physical measurements and control
		G	Standards
		H	Sensors
		J	Micromachines
		K	Energy conversion
		L	Plasma physics
		M	Radiation
		N	Accelerators
4905	Engineering fundamentals	A	Mathematical engineering (mathematical analysis/plan/design/optimization)
		B	Physical mathematics
		C	Computational mechanics
		D	Simulation engineering

Discipline: Mechanical engineering

Item Number	Research Field	Keyword	
5001	Materials/ Mechanics of materials	A	Material design/Process/Mechanical properties/Evaluation
		B	Continuum mechanics
		C	Structural mechanics
		D	Damage mechanics
		E	Fracture
		F	Fatigue
		G	Environments
		H	Reliability
		J	Biomechanics
		K	Micromechanics of materials

(Discipline: Mechanical engineering)

Item Number	Research Field	Keyword	
5002	Production engineering/ Processing studies	A	Modeling for production
		B	Production Systems
		C	Production management
		D	Process design
		E	Machine tools
		F	Forming process
		G	Cutting/Grinding process
		H	Special processing
		J	Ultraprecision machining
		K	Nano/Micro machining
		L	Precise positioning/Measurements
5003	Design engineering/ Machine functional elements/ Tribology	A	Design engineering
		B	Shape modeling
		C	Computer aided design (CAD)/Computer aided engineering (CAE)
		D	Synectics
		E	Dynamics of mechanisms
		F	Machine elements
		G	Functional components
		H	Failure diagnostics
		J	Safety design
		K	Life cycle analysis and design
		L	Tribology
5004	Fluid engineering	A	Computational fluid dynamics
		B	Flow measurements
		C	Compressible/Incompressible flow
		D	Turbulent flow
		E	Multi-phase flow
		F	Reacting flow
		G	Non-Newtonian flow
		H	Micro flow
		J	Molecular fluid dynamics
		K	Bio-fluid mechanics
		L	Environmental fluid mechanics
		M	Acoustics
		N	Fluid machinery
		P	Fluid power systems
5005	Thermal engineering	A	Thermophysical property
		B	Convection
		C	Heat conduction
		D	Thermal radiation
		E	Mass transfer
		F	Combustion
		G	Micro/Nanoscale heat transfer
		H	Thermal engine
		J	Refrigeration/Air conditioning
		K	Heat transfer equipment
		L	Energy use
		M	Bio-thermal engineering
5006	Dynamics/ Control	A	Dynamics
		B	Dynamic design
		C	Vibration mechanics
		D	Vibration analysis/tests
		E	Control instrument
		F	Motion control
		G	Vibration control
		H	Mechanical measurements
		J	Aseismic/Seismic isolation design
		K	Vehicle and transport system control
		L	Acoustic information/Acoustical control
		M	Acoustic energy
5007	Intelligent mechanics/ Mechanical systems	A	Robotics
		B	Mechatronics
		C	Micro/Nano mechatronics
		D	Biomechanics
		E	Softmechanics
		F	Information equipment/Intelligent (smart) machine systems
		G	Precision mechanics and systems
		H	Human-machine systems
		J	Information systems

Discipline: Electrical and electronic engineering

Item Number	Research Field		Keyword
5101	Power engineering/ Power conversion/ Electric machinery	A	Electrical energy engineering (generation/conversion/storage, and energy conservation)
		B	Power system engineering
		C	Electric machinery
		D	Power electronics
		E	Effective utilization of electric energy
		F	Electric/Electromagnetic compatibility
		G	Illumination/Lighting
5102	Electronic materials/ Electric materials	A	Electrical and electronic materials (semiconductor, dielectric,magnetic, fero-dielectric,organic,insulator, superconductor, etc.)
		B	Thin film/Quantum structure
		C	Thick film
		D	Fabrication/Characterization method
5103	Electron device/ Electronic equipment	A	Electron device/Integrated circuits
		B	Circuit design/Conputer aided circuit design (CAD)
		C	Optical devices and circuits
		D	Quantum devices/Spintronic devices
		E	Microwave/Millimeter wave
		F	Wave technology and applications
		G	Bio devices
		H	Information storage/record
		J	Display
		K	Sensing
		L	Micro fabrication process technology
		M	Interconnect, packaging and system integration
5104	Communication/ Network engineering	A	Electronic circuits and systems
		B	Nonlinear theory/circuits
		C	Information theory
		D	Signal processing
		E	Communication systems (wireless, wired, satellite, optical and mobile)
		F	Modulation/Demodulation
		G	Coding/Decoding
		H	Protocol
		J	Antennas
		K	Routing/Switching
		L	Networks/Local area networks (LAN)
		M	Multimedia
		N	Cryptography/Security
5105	System engineering	A	System information/knowledge processing
		B	Social engineering
		C	Industrial engineering and management
		D	Environmental engineering
		E	Production system engineering
		F	Biological engineering
5106	Measurement engineering	A	Measurement technology
		B	Sensing devices
		C	Measuring/Analyzing instruments
		D	Measurement systems
		E	Signal processing
		F	Sensing information processing
5107	Control engineering	A	Control theory
		B	System theory
		C	Knowledge-based control
		D	Control technology
		E	Control systems
		F	Complex systems

Discipline: Civil engineering

Item Number	Research Field		Keyword
5201	Civil engineering materials/ Construction/ Construction management	A	Concrete
		B	Steel
		C	Bituminous material
		D	Composite material/New materials
		E	Timber
		F	Construction
		G	Maintenance/Management
		H	Construction business plan/Construction design
		J	Construction management

(Discipline: Civil engineering)

Item Number	Research Field		Keyword
5202	Structural engineering/ Earthquake engineering/ Maintenance management engineering	A	Applied mechanics
		B	Structural engineering
		C	Steel structure
		D	Concrete structure
		E	Hybrid structure
		F	Wind engineering
		G	Earthquake engineering
		H	Earthquake resistant structure
		J	Earthquake disaster prevention
		K	Maintenance engineering
5203	Geotechnical engineering	A	Soil mechanics
		B	Foundation engineering
		C	Rock engineering
		D	Engineering geology
		E	Ground behavior
		F	Ground and structure
		G	Geotechnical disaster prevention
		H	Geo-environmental engineering
5204	Hydraulic engineering	A	Hydraulics
		B	Environmental hydraulics
		C	Hydrology
		D	River engineering
		E	Water resources engineering
		F	Coastal engineering
		G	Port engineering
		H	Ocean engineering
5205	Civil engineering project/ Traffic engineering	A	Infrastructure planning
		B	Regional/Urban planning
		C	Nationwide spatial planning
		D	Disaster prevention planning/Environmental planning
		E	Transportation planning
		F	Traffic engineering
		G	Railway engineering
		H	Surveying/Remote sensing
		J	Landscape architecture/Design
		K	Infrastructure history
5206	Civil and environmental engineering	A	Environmental planning and management
		B	Environmental systems
		C	Environmental conservation
		D	Water and wastewater systems
		E	Domestic and industrial wastes
		F	Soil and water environments
		G	Atmospheric circulation/Noise and vibration
		H	Ecological engineering

Discipline: Architecture and building engineering

Item Number	Research Field		Keyword
5301	Building structures/ materials	A	Load theory
		B	Structural analysis
		C	Structural design
		D	Concrete structure
		E	Steel structure
		F	Foundation
		G	Structural material
		H	Building construction method
		J	Maintenance technology
		K	Earthquake disaster prevention
		L	Structure control
		M	Earthquake resistant design
		N	Wind resistant design
5302	Architectural environment/ equipment	A	Sound/Vibration environment
		B	Light environment
		C	Heat environment
		D	Air environment
		E	Environmental equipment planning
		F	Environmental psychology/physiology
		G	Building equipment
		H	Fire engineering
		J	Global/Urban environment
		K	Environment designing

(Discipline: Architecture and building engineering)

Item Number	Research Field		Keyword
5303	Town planning/ Architectural planning	A	Planning theory
		B	Design theory
		C	Housing theory
		D	Building types/District facilities
		E	Urban/Regional planning
		F	Administration/System
		G	Building/Urban economy
		H	Production management
		J	Disaster prevention planning
		K	Landscape/Environmental planning
5304	Architectural history/design	A	Architectural history
		B	Urban history
		C	Architectural theory
		D	Design
		E	Style
		F	Landscape/Environment
		G	Preservation/Renovation

Discipline: Material engineering

Item Number	Research Field		Keyword
5401	Physical properties of metals	A	Electronic/Magnetic properties
		B	Properties of semiconductors
		C	Thermal properties
		D	Optical properties
		E	Mechanical properties
		F	Superconductor
		G	Properties of thin films
		H	Properties of nano materials
		J	Computational material properties
		K	Surface/Interface/Grain boundary properties
		L	Fine particulate/Cluster
		M	Quasicrystals
		N	Radiation damage
		P	Atomic/Electronic structure
		Q	Lattice defects
		R	Diffusion/Phase transformation/Phase diagram
5402	Inorganic materials/ Physical properties	A	Crystal structure/Microstructure control
		B	Mechanical/Electronic/Electromagnetic/ Optical/Thermal properties
		C	Surface/Interface properties
		D	High-temperature properties
		E	Grain boundary characteristics
		F	Functional ceramics
		G	Functional glass
		H	Structural ceramics
		J	Carbon material
		K	Dielectric materials
		L	Inorganic polymer
5403	Composite materials/ Physical properties	A	Organic/Inorganic fibers
		B	Matrix materials
		C	Composite effect
		D	Dispersion strengthening
		E	Continuous fiber reinforcement
		F	Fiber reinforced metals (FRM)
		G	Fiber reinforced plastics (FRP)
		H	Fiber reinforced celamics (FRC)
		J	Functionally gradient
		K	Composite particle
		L	Composite fracture
		M	Composite deformation stress
		N	Interface failure
		P	Reaction sintering
		Q	Complex polymer

（Discipline: Material engineering ）

Item Number	Research Field		Keyword
5404	Structural/ Functional materials	A	Strength/Toughness/Fracture/Fatigue/ Creep/Stress corrosion cracking/ Superplasticity/Wear
		B	Nanostructure
		C	Magnetic materials
		D	Electronic/Information materials
		E	Hydrogen storage materials
		F	Fuel cell materials
		G	Materials for heat and energy
		H	Sensor materials/Optical functional materials
		J	Cryogenic material
		K	Earthquake resistant/ Environmental resistant materials
		L	Biomaterials
		M	High-temperature materials
		N	Amorphous materials
		P	Intelligent/Safety/Relieved material
		Q	New functional materials
		R	Environment-conscious materials
		S	Functional polymeric material
5405	Material processing/ treatments	A	Surface/Interface control
		B	Corrosion anticorrosion
		C	Plastic forming
		D	Powder metallurgy
		E	Heat treatment
		F	Joining/Welding
		G	Crystal/Microstructure control
		H	Nano process
		J	Microfabrication
		K	Plasma treatment/Laser processing
		L	Thermal spraying/Coating/Particle deposition process
		M	Plating process
		N	Non destructive inspection
		P	Thin film process
		Q	Nonequilibrium process
		R	Mechanical alloying
		S	Precision molding process
		T	Electrocatalysis
		U	Repair/Life-prolonging treatment
		V	Electrical connection/Wiring
5406	Metal making engineering	A	Reaction/Separation
		B	Materials refining
		C	Melting/Solidification
		D	Foundry
		E	Crystal growth
		F	Microstructure control
		G	Purification
		H	Various manufacturing process
		J	Energy saving process
		K	Extreme condition/Environmental conscious process
		L	Ecological materials
		M	Resource separation/Resource conservation
		N	Waste management
		P	Material recycling process
		Q	Recycling
		R	Materials engineering for safety

Discipline: Process engineering

Item Number	Research Field		Keyword
5501	Properties in chemical engineering process/ Transfer operation/ Unit operation	A	Equilibrium/Transport properties
		B	Fluid/Heat transfer/Mass transfer operation
		C	Distillation
		D	Extraction
		E	Absorption
		F	Adsorption
		G	Ion exchange
		H	Membrane separation
		J	Hetero-phase separation
		K	Ultra high separation
		L	Stirring/Blending operation
		M	Granular and powedered materials operation
		N	Crystallization procedure
		P	Thin film/Microparticle forming operation
		Q	Polymer processing
5502	Reaction engineering/ Process system	A	Gas/Liquid/Solid/Supercritical fluid operation
		B	Novel reaction field
		C	Reaction rate
		D	Reaction mechanism
		E	Reaction apparatus
		F	Materials synthesis process
		G	Polymerization process
		H	Measurement
		J	Sensors
		K	Process control
		L	Processing system design
		M	Process information processing
		N	Process operation/Facilities management
5503	Catalyst/ Resource chemical process	A	Catalysis reaction
		B	Catalyst preparation chemistry
		C	Catalyst performance analysis
		D	Energy conversion process
		E	Fossil fuel effective utilization technology
		F	Resources/Energy effective utilization technology
		G	Resources/Energy saving technology
		H	Combustion technology
5504	Biofunction/ Bioprocess	A	Biocatalyst engineering
		B	Biofunction engineering
		C	Food engineering
		D	Medicochemical engineering
		E	Applied bioelectrochemistry
		F	Bioproduction process
		G	Bioreactor
		H	Biosensor
		J	Bioseparation
		K	Bioinformatics
		L	Genomic engineering

Discipline: Integrated engineering

Item Number	Research Field		Keyword
5601	Aerospace engineering	A	Aerodynamics
		B	Structure/Material
		C	Vibration/Strength
		D	Guidance/Navigation/Control
		E	Propulsion/Engine
		F	Flight dynamics
		G	Aerospace system
		H	Design/Instrumentation
		J	Special aircraft
		K	Space utilization/Exploration
		L	Aerospace environment
5602	Naval and maritime engineering	A	Propulsion/Vessel dynamics
		B	Material/Structural mechanics
		C	Marine hydrodynamics
		D	Planning/Design/Production system
		E	Shipbuilding/Equipment
		F	Maritime transportation system
		G	Marine engine/Fuel
		H	Marine environment
		J	Marine resources/Energy
		K	Ocean exploration/Equipment
		L	Undersea and subsea engineering
		M	Polar engineering

(Discipline: Integrated engineering)

Item Number	Research Field		Keyword
5603	Earth system and resources enginnering	A	Applied geology
		B	Geo-engineering
		C	Remote sensing
		D	Monitoring in Geo-engineering
		E	Earth systems
		F	Resource exploration
		G	Natural resource development
		H	Resource evaluation
		J	Mineral processing
		K	Underground disposal and storage
		L	Contaminated soil remediation
		M	Development and utilization of deep underground
		N	Material resources
		P	Renewable source/Energy
		Q	Economic resources
5604	Recycling engineering	A	Waste reduction
		B	Reuse
		C	Cascade recycling/Utilization
		D	Recycling
		E	Waste valuable recovery
		F	Solid-solid separation
		G	Purification of materials
		H	Proper treatment and disposal of waste
		J	Recycling and LCA
		K	Environmentally conscious design
		L	Green productions
		M	Zero emission
5605	Nuclear fusion studies	A	Core plasma
		B	Peripheral plasma
		C	Plasma measurement
		D	Plasma-wall interaction
		E	Theoretical simulation
		F	Low activation material
		G	Fuel/Blanket
		H	Electromagnet
		J	Inertial confinement fusion
		K	Fusion systems engineering
		L	Safety/Biological influence
5606	Nuclear engineering	A	Radiation engineering/Beam science
		B	Reactor physics/Nuclear data
		C	Nuclear measurements/Radiation physics
		D	Thermo-hydrodynamics/Structure
		E	System design/Safety engineering
		F	Nuclear material/Nuclear fuel
		G	Isotope/Radiation chemistry
		H	Fuel cycle
		J	Backend
		K	Advanced reactors
		L	Health physics/Environmental safety
		M	Social environment of nuclear energy
5607	Energy engineering	A	Energy generation/conversion
		B	Energy transport/storage
		C	Energy saving/Efficient use of energy
		D	Energy system
		E	Environmental harmony
		F	Natural energy use

Category: Biological Sciences

Area: Biology

Discipline: Basic biology

Item Number	Research Field		Keyword
5701	Genetics/ Genome dynamics	A	Molecular genetics
		B	Cytogenetics
		C	Population genetics
		D	Evolutionary genetics
		E	Human genetics
		F	Genetic diversity
		G	Genome architecture, reorganization, and maintenance
		H	Genomic function and expression
		J	Developmental genetics
		K	Behavioral genetics
		L	Mutagen
		M	Chromosome
		N	Model organism
5702	Ecology/ Environment	A	Population
		B	Society
		C	Species interaction
		D	Assemblage
		E	Ecosystem
		F	Evolutionary ecology
		G	Behavioral ecology
		H	Natural environment
		J	Physiological ecology
		K	Molecular ecology
		L	Conservation ecology
5703	Plant molecular biology/ Plant physiology	A	Plastid function/Photosynthesis
		B	Phytohormones/Growth and development/Totipotency
		C	Organelles/Cell wall
		D	Response to environmental factors
		E	Plant-microbe interaction/Symbiosis
		F	Metabolism
		G	Plant molecular function
5704	Morphology/ Structure	A	Animal morphology
		B	Plant morphology
		C	Microbial morphology
		D	Comparative endocrinology
		E	Molecular morphology
		F	Morphogenesis
		G	Tissue construction
		H	Microstructure
		J	Microscopical technique
5705	Animal physiology/ Animal behavior	A	Metabolism
		B	Neurobiology
		C	Neuroethology
		D	Behavioral physiology
		E	Animal physiology and biochemistry
5706	Biodiversity/ Systematics	A	Metabolism physiology
		B	Classification system
		C	Evolution
		D	Genetic diversity
		E	Population/Species diversity
		F	Community/Ecosystem diversity
		G	Taxonomic character
		H	Phylogenetics
		J	Speciation
		K	Natural history
		L	Museum

Discipline: Biological science

Item Number	Research Field		Keyword
5801	Structural biochemistry	A	Carbohydrate
		B	Lipid
		C	Nucleic acid
		D	Protein
		E	Enzyme
		F	Gene and chromosome
		G	Biological membrane and receptor
		H	Intercellular matrix
		J	Organelles
		K	Posttranslational modification
		L	Molecular recognition and interaction
		M	Denaturation and folding
		N	Structural analysis and prediction
		P	NMR
		Q	Mass spectrometry
		R	X-ray crystallography
		S	High resolution electron microscopy
5802	Functional biochemistry	A	Catalytic mechanism of enzyme
		B	Regulation of enzyme
		C	Allosteric effect
		D	Enzyme abnormality
		E	Gene expression and replication
		F	Biological energy transduction
		G	Metalloprotein
		H	Biological trace element
		J	Hormone and bioactive substances
		K	Cell signal transduction
		L	Membrane transport and transporters
		M	Proteolysis
		N	Cytoskeleton
		P	Immunobiochemistry
		Q	Glycobiology
		R	Bioelectrochemistry
5803	Biophysics	A	Structure, dynamics and functions of proteins and nucleic acids
		B	Motility/Transport
		C	Biomembranes/Receptors/Channels
		D	Photobiology
		E	Cellular signaling and dynamics
		F	Neural information processing
		G	Theoretical biology/Bioinformatics
		H	Structural biology
		J	Folding
		K	Prediction of structure and function
		L	Single-molecule measurements and manipulation
		M	Bioimaging
		N	Non-equilibrium/Complex systems
5804	Molecular biology	A	DNA replication
		B	DNA damage and repair
		C	Recombination
		D	Transcription
		E	RNA
		F	Translation
		G	Protein modification
		H	Intermolecular interaction
		J	Chromosomal organization, function and segregation
5805	Cell biology	A	Cell structure and function
		B	Biomembrane
		C	Cytoskeleton/Cell motility
		D	Intracellular signaling
		E	Intercellular communication
		F	Cell cycle
		G	Cytokinesis
		H	Nuclear structure
		J	Cell-cell interaction/Extracellular matrix
		K	Protein degradation
		L	Chromatin

(Discipline: Biological science)

Item Number	Research Field	Keyword	
5806	Developmental biology	A	Cell differentiation
		B	Stem cells
		C	Germ layer formation/Gastrulation/Somitogenesis
		D	Organogenesis
		E	Fertilization
		F	Reproduction/Germ cells
		G	Regulation of gene expression
		H	Developmental genetics
		J	Evolution and development
5807	Evolutionary biology	A	Origin of life
		B	Origin of eukaryotic organisms
		C	Origin of organelles
		D	Origin of multicellularity
		E	Molecular evolution
		F	Morphological evolution
		G	Evolution of function
		H	Evolution of genes
		J	Evolutionary biology in general
		K	Comparative genomics
		L	Experimental evolutionary biology

Discipline: Anthropology

Item Number	Research Field	Keyword	
5901	Physical anthropology	A	Morphology
		B	Prehistory/Chronology
		C	Biomechanism
		D	Molecular anthropology/Genetics
		E	Ecology
		F	Primates
		G	Evolution
		H	Growth/Aging
		J	Society
		K	Behavior/Cognition
		L	Reproduction/Development
		M	Bone archaeology
		N	Geographic diversity
5902	Applied anthropology	A	Physiological anthropology
		B	Ergonomics
		C	Physiological polymorphism
		D	Environmental adaptive capacity
		E	Systemic relationship
		F	Functional potential
		G	Techno-adaptability
		H	Somatometry
		J	Clothing
		K	Somatology/Adaptation
		L	Constitution/Health
		M	Forensic anthropology
		N	Medical anthropology

Area: Agricultural sciences

Discipline: Agriculture

Item Number	Research Field	Keyword	
6001	Breeding science	A	Plant breeding/Plant genetics
		B	Breeding theory
		C	Genetic resources/Phylogeny
		D	Plant molecular breeding
		E	Resistance/Tolerance
		F	Generation of genetic diversity/Analysis of genetic diversity
		G	Gene/Protein
		H	Chromosome engineering
		J	Plant genome information
		K	Quality/Composition
		L	Developmental physiology/ Developmental genetics
6002	Crop science/ Weed science	A	Food crop
		B	Industrial crop
		C	Forage crop
		D	Cultivation system
		E	Crop quality/Crop processing
		F	Weed science
		G	Weed control
		H	Wild plant resources
6003	Horticulture/ Landscape architecture	A	Fruit tree
		B	Vegetable
		C	Flower
		D	Use of horticultural plants
		E	Storage of horticultural plants/ Processing of horticultural plants
		F	Protected horticulture
		G	Landscaping
		H	Landscape formation/Landscape conservation
		J	Open space planning
6004	Plant pathology	A	Pathologic
		B	Pathological physiology
		C	Plant-pathogen interactions
		D	Pathogenicity factor/Virulence factor
		E	Disease control
		F	Disease resistance
		G	Phylogenetic systematics
		H	Infection/Proliferation
6005	Applied entomology	A	Animal pest
		B	Animal pest management
		C	Insect properties development and utilization
		D	Insect pathology
		E	Sericulture/Silk
		F	Insect ecology
		G	Insect physiology
		H	Insect classification
		J	Insect pest management/Biological control
		K	Insect molecular biology
		L	Insect behavior

Discipline: Agricultural chemistry

Item Number	Research Field		Keyword
6101	Plant nutrition/ Soil science	A	Plant physiology, growth and development
		B	Plant nutrition and metabolism
		C	Plant metabolic regulation
		D	Fertilizer
		E	Soil classification
		F	Soil physics
		G	Soil chemistry
		H	Soil organisms
		J	Soil environment
6102	Applied microbiology	A	Microbiology
		B	Fermentative production
		C	Microbial classification
		D	Microbial genetics/breeding
		E	Microbial enzyme
		F	Microbial metabolism
		G	Microbial function
		H	Microbial application
		J	Environmental microorganism
		K	Antibiotic production
		L	Microbial ecology
		M	Control of microbe
		N	Genetic resources
		P	Gene expression
6103	Applied biochemistry	A	Animal biochemistry
		B	Plant biochemistry
		C	Enzyme application
		D	Genetic engineering
		E	Protein engineering
		F	Bioengineering
		G	Metabolic engineering
		H	Cell/Tissue culture
		J	Enzyme chemistry
		K	Metabolism and physiology
		L	Gene expression
		M	Production of useful material
		N	Cellular response
		P	Signal transduction
		Q	Trace element
6104	Bioproduction chemistry/ Bioorganic chemistry	A	Bioactive substance
		B	Regulator of cell function
		C	Pesticide science
		D	Plant growth substance
		E	Signal molecule
		F	Biosynthesis
		G	Natural products chemistry
		H	Bioinorganic chemistry
		J	Physical chemistry
		K	Analytical chemistry
		L	Organic chemistry
		M	Bioregulatory chemistry
		N	Molecular recognition
6105	Food science	A	Food chemistry
		B	Provisions chemistry
		C	Food biochemistry
		D	Food physics
		E	Food engineering
		F	Food function
		G	Food preservation
		H	Food manufacturing/processing
		J	Nutritional chemistry
		K	Nutritional biochemistry
		L	Food safety
		M	Food analysis

Discipline: Forestry

Item Number	Research Field		Keyword
6201	Forest science	A	Forest productivity/Tree breeding
		B	Forest ecology/Forest protection/Forest conservation
		C	Forest biology
		D	Forest management/Forest policy
		E	Forest landscape
		F	Forest utilization
		G	Revegetation/Environmental conservation forest
		H	Erosion control/Erosion and torrent improvement
		J	Landcollapse/Landslide/Mudflow
		K	Water conservation/Water quality
6202	Wood science	A	Wood anatomy/Wood formation
		B	Materials/Physical properties
		C	Cellulose
		D	Lignin
		E	Extractives/Minor extractives
		F	Chemical processing
		G	Preservation/Wood culture
		H	Drying/Machining
		J	Adhesion/Wood based material
		K	Strength/Wooden construction
		L	Habitability/Sensibility
		M	Woody biomass
		N	Pulp/Paper

Discipline: Fisheries science

Item Number	Research Field		Keyword
6301	General fisheries	A	Taxonomy
		B	Development
		C	Morphology
		D	Physiology
		E	Ecology/Behavior
		F	Fishery
		G	Resources/Resource management
		H	Aquaculture
		J	Genetics/Heredity/Breeding
		K	Fish disease
		L	Aquatic environment/Conservation
		M	Algae/Seaweeds
		N	Plankton
		P	Microorganisms
		Q	Harmful algae
6302	Fisheries chemistry	A	Biochemistry
		B	Metabolism/Enzyme
		C	Fish nutrition
		D	Molecular biology
		E	Bioengineering
		F	Biopolymer
		G	Natural products chemistry
		H	Analytical chemistry
		J	Food chemistry
		K	Food processing/Preservation
		L	Hygiene/Food sanitation
		M	Food microorganism

Discipline: Agro-economics

Item Number	Research Field		Keyword
6401	Agronomy	A	Farm management
		B	Agricultural policy
		C	Agricultural economy
		D	Agricultural finance
		E	Agricultural history
		F	International agriculture
		G	Regional planning
		H	Rural society
		J	Agriculture and environment
		K	Food system
		L	Marketing
		M	Food safety
		N	Agricultural ethics

Discipline: Agro-engineering

Item Number	Research Field		Keyword
6501	Irrigation, drainage and rural engineering/ Rural planning	A	Hydraulics
		B	Hydrology
		C	Soil physics
		D	Soil mechanics/Applied mechanics
		E	Land improvement facilities
		F	Material/Construction
		G	Irrigation and drainage
		H	Land improvement/Agricultural land use planning
		J	Regional planning/Community development
		K	Regional environment/Countryside landscape
		L	Rural ecosystem
		M	Water pollution/Water environment
		N	Material circulation
		P	Soil conservation/Disaster prevention
6502	Agricultural environmental engineering	A	Agricultural production environment
		B	Bioproduction machinery
		C	Postharvest engineering
		D	Bioproduction system
		E	Farming technology management
		F	Agricultural labour science
		G	Supply chain management
		H	Environment control in biology
		J	Greenhouse horticulture/Plant factory
		K	Bioprocessing
		L	Natural energy use
		M	Agricultural meteorology/Micrometeorology
		N	Meteorological disasters
		P	Global warming impacts
		Q	Greening environment
6503	Agricultural information engineering	A	Image processing/Image recognition
		B	Nondestructive measurement
		C	Bioinstrumentation
		D	Biosensing
		E	Bioinformatics
		F	Remote sensing
		G	Geographic information system
		H	Modeling/Simulation
		J	Computer network
		K	ICT/Knowledge processing
		L	Agricultural robotics
		M	Precision agriculture
		N	Bioenvironmental information
		P	Agricultural information
		Q	Farming information

Discipline: Zootechnical science/Veterinary medical science

Item Number	Research Field		Keyword
6601	Zootechnical science/ Grassland science	A	Grassland ecology
		B	Grassland utilization
		C	Grassland management/Conservation
		D	Feed/Feedstuffs
		E	Nutrition/Feeding
		F	Livestock production system
		G	Livestock management/Welfare
		H	Wild animal management/utilization
		J	Animal product utilization
		K	Livestock biomass
6602	Applied animal science	A	Breeding
		B	Reproduction
		C	Metabolism/Endocrine control
		D	Functional substance
		E	Developmental biotechnology
		F	Cloned livestock
		G	Livestock genome
		H	Wildlife protection/Proliferation
6603	Basic veterinary science/ Basic zootechnical science	A	Hereditary/Genetics
		B	Embryology/Fetal development
		C	Physiology
		D	Morphology
		E	Pharmacology
		F	Pathology
		G	Pathological condition
		H	Pathogenic microorganism
		J	Parasitology
		K	Immunology
		L	Biological information
		M	Behavior
6604	Applied veterinary science	A	Animal hygiene
		B	Veterinary public health
		C	Toxicology
		D	Disease prevention and control
		E	Wildlife
		F	Animal welfare
		G	Zoonoses
		H	Epidemiology
6605	Clinical veterinary science	A	Internal medicine
		B	Surgery
		C	Clinical breeding/Obstetrics
		D	Diagnostics
		E	Laboratory examination
		F	Therapy
		G	Prognosis
		H	Clinical pathology/Pathological condition
		J	Regenerative medicine
		K	Anesthesia/Analgetics
		L	Radiology
		M	Animal nursing

Discipline: Boundary agriculture

Item Number	Research Field		Keyword
6701	Boundary agriculture	A	Environmental analysis
		B	Environmental pollution
		C	Environmental reclamation
		D	Environmental purification
		E	Aquatic pollution
		F	Resource recycling systems
		G	Biomass
		H	Genetic resources
		J	Biological environment
		K	Resource environment balance
		L	Regional agriculture
6702	Applied molecular and cellular biology	A	Gene/Chromosome engineering
		B	Protein/Glycosylation engineering
		C	Metabolic engineering
		D	Organelle engineering
		E	Cellular engineering
		F	Gene expression
		G	Development/Differentiation control
		H	Cell-cell interaction
		J	Intermolecular interaction
		K	Biosensor
		L	Cellular function
		M	Molecular imformation
		N	Functional-molecule design

Area: Medicine, dentistry, and pharmacy

Discipline: Pharmacy

Item Number	Research Field			Screening Sub-panel Number / Keyword
6801	Chemical pharmacy		A	Organic chemistry
			B	Synthetic organic chemistry
			C	Biomolecules
			D	Herbal medicine/Natural products chemistry
			E	Mechanistic organic chemistry
			F	Heterocyclic chemistry
			G	Asymmetric synthesis
6802	Physical pharmacy		A	Physical chemistry
			B	Analytical chemistry
			C	Galenical pharmacy
			D	Biophysical chemistry
			E	Isotope pharmacentical chemistry
			F	Biocomplex chemistry
			G	Molecular structure science
			H	Structural biology
			J	Imaging
			K	Drug delivery
			L	Information science
6803	Biological pharmacy	1	A	Biochemistry
			B	Molecular biology
			C	Immunology
			D	Cell biology
			E	Developmental biology
		2	F	Pharmacology
			G	Analytical pharmacology
			H	Neurobiology
6804	Drug development chemistry		A	Medicinal chemistry
			B	Medicinal molecular design
			C	Bioactive substance
			D	Functional science of medicinal molecules
			E	Genomic drug development
			F	Regulatory science
6805	Environmental pharmacy		A	Environmental hygiene
			B	Environmental chemistry
			C	Environmental dynamics
			D	Food hygienics
			E	Chemical nutrition
			F	Microbiology and infectious diseases
			G	Medicinal resources
			H	Toxicology
6806	Medical pharmacy		A	Clinical pharmaceutical sciences
			B	Pharmacokinetics and drug metabolism
			C	Medical pharmaceutics
			D	Drug information and clinical toxicology
			E	Clinical chemistry
			F	Drug economics
			G	Personalized medicine
			H	Social pharmacy
			J	Pharmacy management insurance

Discipline: Basic medicine

Item Number	Research Field			Screening Sub-panel Number / Keyword
6901	General anatomy (including histology/ embryology)	1	A	Gross anatomy
			B	Functional anatomy
			C	Clinical anatomy
			D	Comparative anatomy
			E	Radiological anatomy
			F	Physical anthropology
			G	Morphogenesis and embryogenesis
			H	Teratology
			J	Experimental morphology
			K	Anatomical education
		2	L	Cytology
			M	Histology
			N	Cell differentiation and tissue formation
			P	Cell function and morphology
			Q	Ultrastructural morphology
			R	Molecular morphology
			S	Histocytochemistry
			T	Microscopic technology

(Discipline: Basic medicine)

Item Number	Research Field		Screening Sub-panel Number / Keyword
6902	General physiology	A	Molecular and cellular physiology
		B	Biological membrane, channel, transporter and active transport
		C	Receptor and intracellular signal transduction
		D	Stimulation-secretion coupling
		E	Epithelial function
		F	Heredity, fertilization, development and differentiation
		G	Cellular proliferation and cell death
		H	Cellular motility, morphogenesis and intercellular interaction
		J	Microcirculation, peripheral circulation, circulation dynamics and regulation
		K	Ventilation mechanics, blood gas function and respiratory control
		L	Gastrointestinal motility, absorption and digestion
		M	Renal function, body fluids, and acid-base balance
		N	Blood coagulation and rheology
		P	Pathophysiology
		Q	System physiology and physiome
		R	Comparative, developmental and genome physiology
6903	Environmental physiology (including physical medicine and nutritional physiology)	A	Environmental physiology
		B	Physical medicine
		C	Nutritional physiology
		D	Adaptive and associative physiology
		E	Biorhythm
		F	Growth, development, and aging
		G	Stress
		H	Space medicine
		J	Behavioral physiology
		K	Biological clock
		L	Hyperthermia physiology
		M	Feeding regulation
		N	Social environment
		P	Sleep and arousal
		Q	Reproductive physiology
6904	General pharmacology	A	Kidney
		B	Smooth muscle and skeletal muscle
		C	Gastrointestinal
		D	Inflammation and immunity
		E	Bioactive substance
		F	Central nervous system and peripheral nerve
		G	Spinal cord and pain
		H	Receptor, channel, transport system, and signal transduction system
		J	Cardiovascular system and hematology
		K	Drug discovery and pharmacogenomics
		L	Drug therapy and toxicology
		M	Herbal medicine and pharmacology of natural products
6905	General medical chemistry	A	Biomolecular medicine
		B	Cellular biochemistry (cellular medical chemistry)
		C	Genomic biochemistry (genomic medical chemistry)
		D	Developmental medicine
		E	Regenerative medicine
		F	Aging medicine
		G	Higher order life sciences
		H	Intracellular signaling

（Discipline: Basic medicine）

Item Number	Research Field		Screening Sub-panel Number / Keyword	
6906	Pathological medical chemistry		A	Abnormal metabolism
			B	Molecular pathogenesis
			C	Molecular and gene diagnosis
			D	Molecular oncology
			E	Molecular pathogenesis of nutrition
6907	Human genetics		A	Medical genome science
			B	Molecular genetics
			C	Cytogenetics
			D	Pharmacogenetics
			E	Genetic biochemistry
			F	Genetic epidemiology
			G	Genetic diagnostics
			H	Gene therapy
			J	Genetic counseling
			K	Bioethics
			L	Epigenetics
6908	Human pathology	1	A	Brain and nervous system
			B	Digestive system and salivary gland
			C	Respiratory and mediastinal organs
			D	Cardiovascular system
			E	Urogenital and endocrine organs
			F	Bone, joint, muscle, skin and sense organs
			G	Blood
		2	H	Molecular pathology
			J	Geographic pathology
			K	Diagnostic pathology
			L	Telepathology
			M	Environmental pathology
			N	Transplantation pathology
6909	Experimental pathology	1	A	Animal
			B	Cells
			C	Molecules
			D	Ultrastructure
		2	E	Tumors
			F	Inflammation
			G	Toxicological pathology
			H	Developmental pathology
			J	Animal models
			K	Regenerative medicine
6910	Parasitology (including sanitary zoology)		A	Helminth
			B	Protozoa
			C	Arthropod vector
			D	Pathogenic animals
			E	Molecule
			F	Epidemiology
			G	Incidence
			H	Genetics
			J	Immunity
			K	Tropical diseases and international health
6911	Bacteriology (including mycology)		A	Pathogenicity
			B	Infection immunity
			C	Epidemiology
			D	Genetics
			E	Classification
			F	Diagnosis
			G	Structure and physiology
6912	Virology		A	Molecules
			B	Cells
			C	Whole body
			D	Epidemiology
			E	Pathogenicity
			F	Diagnosis and treatment
			G	Protection/Vaccine
			H	Prions
6913	Immunology		A	Cyotkines
			B	Antibodies
			C	Antigen recognition
			D	Lymphocytes
			E	Innate immunity
			F	Acquired immunity
			G	Mucosal immunity
			H	Immunological memory
			J	Immune tolerance/Autoimmunity
			K	Immune surveilance/Tumor immunology
			L	Immunodeficiency
			M	Allergy/Immune-related disorder
			N	Immunoregulation/Transplantation immunology

Discipline: Boundary medicine

Item Number	Research Field		Keyword
7001	Medical sociology	A	Hospital administration
		B	Medical administration
		C	Medical informatics
		D	Bioethics
		E	Medical history
		F	Medical and pharmaceutical education
		G	Health economics
		H	Risk management
		J	Quality of medical care
		K	Community medicine
		L	Health policy science
		M	Social security science
		N	Care and welfare
		P	Health policy evaluation
		Q	Infection control science
7002	Applied pharmacology	A	Clinical pharmacology
		B	Clinical trials and ethics
		C	Pharmaceutical therapeutics
		D	Adverse drug reaction and drug interaction
		E	Drug transport mechanism
		F	Pharmacogenomics
		G	Clinical isotope pharmacy
		H	Medical devices and pharmacy
		J	Drug metabolic enzyme and tranporter
		K	Imaging
		L	Research using human tissue
		M	Drug dependence and drug sensitivity
		N	Genetic diagnosis and gene therapy
		P	Drug delivery
		Q	Pharmacoepidemiology
7003	Laboratory medicine	A	Clinical laboratory medicine
		B	Clinical pathology
		C	Clinical chemistry
		D	Immunology and serology
		E	Clinical laboratory system
		F	Genetic testing
		G	Clinical microbiology
		H	Laboratory oncology
		J	Clinical hematology
		K	Physiological laboratory testing
7004	Pain science	A	evaluation methods of pain
		B	epidemiology of pain
		C	analgesic
		D	non-drug therapy
		E	pain producing substance (PPS), algesic substance
		F	generating or exacerbating mechanism of pain
		G	neural mechanism of pain
		H	hyperalgesia
		J	genetic factors of pain
		K	development or aging factors of pain
		L	Gender difference in pain
		M	Pain withdrawal reflex
		N	numbness, hypesthesia
		P	nociceptor
		Q	histopathic pain, histotoxic pain
		R	neuropathic pain, neuralgia
		S	psychological pain
		T	itching, pruritus
		U	epidemiology of itching, or pruritus
		V	antipruritics
		W	itch-producing substances
		X	generating or exacerbating mechanism of pruritus
		Y	neural mechanism of pruritus
		Z	curettage behavior
		a	hyperknesis
		b	psychological itching
		c	development or aging factors of itching

Discipline: Society medicine

Item Number	Research Field			Keyword
7101	Hygiene		A	Environmental health
			B	Preventive medicine
			C	Industrial health
			D	Environmental epidemiology
			E	Molecular epidemiology
			F	Medical statistics
			G	Bioethics
			H	Environmental toxicology
			J	Industrial toxicology
			K	Environmental physiology
			L	Global environment
			M	Disaster accident
			N	Ergonomics
			P	Traffic medicine
			Q	Food sanitation
7102	Public health/ Health science		A	Community health nursing
			B	Maternal and child health
			C	School health
			D	Adult health issues
			E	Health/Nutrition
			F	Health management
			G	Health education
			H	Behavioral healthcare
			J	Population problem
			K	International health
			L	Health administration
			M	Hospital management
			N	Medical informatics
			P	Care insurance
			Q	Epidemiology
			R	Medical examination
			S	Mass-screening
7103	Legal medicine		A	Forensics
			B	Medical ethics
			C	Criminal psychiatry
			D	Correctional medicine
			E	Compensation science
			F	Medical record management
			G	Formsic examination
			H	Alcohol research
			J	Forensic odontology
			K	DNA polymorphism
			L	Forensic pathology

Discipline: Clinical internal medicine

Item Number	Research Field	Screening Sub-panel Number		Keyword
7201	General internal medicine (including psychosomatic medicine)		A	Psychosomatic internal medicine
			B	Stress science
			C	Oriental medicine
			D	Alternative medicine
			E	Palliative medicine
			F	General medicine
			G	Primary care
			H	Geriatrics
7202	Gastroenterology	1	A	Upper gastroenterology (esophagus, stomach, duodenum)
		2	B	Lower gastroenterology (small intestine, colon)
		3	C	Hepatology
		4	D	Biliary-Pancreatology
		5	E	Digestive endoscopy
7203	Circulatory organs internal medicine	1	A	Clinical cardiology
		2	B	Molecular cardiology
		3	C	Molecular vascular biology
7204	Respiratory organ internal medicine	1	A	Obstructive lung disease
		2	B	Non-obstructive lung disease, pulmonary fibrosis, respiratory infection and other diseases
7205	Kidney internal medicine	1	A	Nephrology
		2	B	Hypertension
			C	Water and electrolyte metabolism
			D	Hemodialysis

(Discipline: Clinical internal medicine)

Item Number	Research Field	Screening Sub-panel Number		Keyword
7206	Neurology	1	A	Molecular pathophysiology
			B	Neuroimmunology
			C	Clinical molecular neurogenetics
		2	D	Clinical neurophysiology
			E	Clinical neuromorphology
			F	Clinical neuropsychology
			G	Functional neuroimaging
7207	Metabolomics	1	A	Disturbances of energy and carbohydrate metabolism
			B	Metabolic syndrome
		2	C	Abnormal lipid metabolism
			D	Disorder of purine metabolism
			E	Abnormal bone and calcium metabolism
			F	Metabolic electrolyte abnormality
7208	Endocrinology		A	Endocrinology
			B	Reproductive endocrinology
7209	Hematology	1	A	Hematology
			B	Hematology/Oncology
		2	C	Thrombosis/Hematostasis
			D	Transfusion medicine
			E	Hematopoietic stem cell transplantation
			F	Hematology/Immunology
			G	Immune regulation
7210	Collagenous pathology/ Allergology	1	A	Connective tissue diseases
			B	Rheumatology
		2	C	Allergology
			D	Clinical immunology
			E	Inflammation
7211	Infectious disease medicine		A	Infection diagnosis
			B	Infection therapy
			C	Infection prevention
			D	International infection science
			E	Infection epidemiology
			F	Opportunistic infection
7212	Pediatrics	1	A	Developmental pediatrics
			B	Growth and developmental medicine
			C	Pediatric neurology
			D	Pediatric endocrinology
			E	Pediatric metabolism/Nutrition
			F	Hereditary/Teratology
			G	Pediatric health
			H	Pediatric social medicine
		2	J	Pediatric hematology
			K	Pediatric oncology
			L	Pediatric immunology/Allergy/Connective tissue diseases
		3	M	Pediatric cardiology
			N	Pediatric respirology
			P	Pediatric infectious disease
			Q	Pediatric nephrology/Urology
			R	Pediatric gastroenterology
7213	Embryonic/ Neonatal medicine		A	Prenatal diagnosis
			B	Fetal medicine
			C	Teratology
			D	Neonatal medicine
			E	Premature baby medicine
7214	Dermatology	1	A	Skin diagnostics
			B	Dermatopathology
			C	Dermatologic oncology
		2	D	Laser therapeutics
			E	Skin physiology
			F	Pigment cell biology
			G	Sexually transmitted diseases
			H	Infectious diseases
			J	Inflammation and regeneration
7215	Psychiatric science	1	A	Psychopharmacology
			B	Clinical molecular genetics
		2	C	Psychophysiology
			D	Psychopathology
			E	Social psychiatry
			F	Child and adolescence psychiatry
			G	Geriatric psychiatry
			H	Forensic psychiatry
			J	Neuropsychology
			K	Liaison psychiatry
			L	Psychiatric rehabilitation

(Discipline: Clinical internal medicine)

Item Number	Research Field	Screening Sub-panel Number / Keyword		
7216	Radiation science	1	A	Medical imaging (including diagnostic
			B	X-Ray/CT
			C	Magnetic resonance imaging
			D	Nuclear medicine (including PET)
		2	E	Radiopharmaceuticals/Contrast medium
			F	Radiation safety management
			G	Medical imaging technology
			H	Interventional radiology
			J	Angioplasty/Osteoplasty/Vascular embolization
			K	Radiofrequency ablation（RFA）/Stent treatment/Reserver treatment
		3	L	Therapeutic radiology
			M	Radiation oncology
			N	Radiotherapy physics
			P	Radiotherapy biology
			Q	Particle beam therapy

Discipline: Clinical surgery

Item Number	Research Field	Screening Sub-panel Number / Keyword		
7301	General surgery	1	A	General surgery
			B	Transplant surgery
			C	Artificial organs science
			D	Vascular surgery
		2	E	Experimental surgery
			F	Endocrine surgery
			G	Breast surgery
			H	Surgical metabolism and nutrition
7302	Digestive surgery	1	A	Esophageal surgery
			B	Gastroduodenal surgery
		2	C	Colorectal surgery
		3	D	Hepatic surgery
			E	Surgery for spleen and portal vein
		4	F	Biliary surgery
			G	Pancreatic surgery
7303	Thoracic surgery	1	A	Cardiovascular surgery
		2	B	Chest surgery
			C	Mediastinal surgery
			D	Pleural surgery
7304	Cerebral neurosurgery	1	A	Head injury
			B	Cerebrovascular disorder
			C	Cerebral blood vessel surgery
			D	Experimental brain surgery
			E	Diagnostic neuroimaging
		2	F	Brain tumor
			G	Functional cranial nerve surgery
			H	Pediatric neurological surgery
			J	Spinal cord/Spine disease
			K	Brain surgical instruments
			L	Radiation neurological surgery
7305	Orthopaedic surgery	1	A	Spinal disorders
			B	Muscle/Nerve disorders
			C	Physical therapy
			D	Musculoskeletal rehabilitation
		2	E	Bone and soft tissue tumors
			F	Limb reconstruction surgery
			G	Pediatric orthopaedics
			H	Musculoskeletal traumatology
		3	J	Joint disorders
			K	Rheumatic diseases
			L	Bone cartilage metabolism
			M	Sports medicine
7306	Anesthesiology/ Resuscitation studies	1	A	Anesthesiology
			B	Resuscitation studies
		2	C	Perioperative management
			D	Pain management
7307	Urology	1	A	Oncology
		2	B	Voiding function and dysfunction
			C	Urolithiasis studies
			D	Infectious diseases
			E	Regenerative medicine
			F	Teratology
		3	G	Adrenal surgery
			H	Kidney transplantation
			J	Andrology

(Discipline: Clinical surgery)

Item Number	Research Field	Screening Sub-panel Number / Keyword		
7308	Obstetrics and gynecology	1	A	Obstetrics
			B	Reproductive medicine
		2	C	Gynecology
			D	Gynecologic oncology
			E	Menopause medicine
7309	Otorhinolaryngology	1	A	Otology
		2	B	Rhinology
		3	C	Head and neck surgery
			D	Tracheal esophageal study
			E	Laryngology
			F	Pharyngology
7310	Ophthalmology	1	A	Clinical research
			B	Epidemiology study
			C	Social medicine
			D	Ocular biochemistry and molecular biology
			E	Ocular cell biology
			F	Ophthalmic genetics
			G	Ocular histology
			H	Ocular pathology
		2	J	Ocular pharmacology
			K	Ocular physiology
			L	Ocular developmental and regenerative biology
			M	Ocular immunology
			N	Ocular microbiology/Infectious diseases
			P	Orthoptic science
			Q	Ophthalmological optics
			R	Ophtalmic medical engineering
7311	Pediatric surgery		A	Gastroenterology of congenital diseases
			B	Surgery of congenital caldiovascular diseases
			C	Fetal surgery
			D	Pediatric urology
			E	Pediatric chest surgery
			F	Pediatric oncology
7312	Plastic surgery		A	Reconstructive surgery
			B	Wound healing science
			C	Microsurgery
			D	Tissue culture/Transplantation
			E	Regenerative medicine
7313	Emergency medicine		A	Intensive care medicine
			B	Trauma surger
			C	Emergency resuscitation science
			D	Acute toxicology
			E	Disaster medicine

Discipline: Dentistry

Item Number	Research Field	Keyword	
7401	Morphological basic dentistry	A	Oral anatomy (including histology/embryology)
		B	Oral pathology
		C	Oral bacteriology
7402	Functional basic dentistry	A	Oral physiology
		B	Oral biochemistry
		C	Dental pharmacology
7403	Pathobiological dentistry/ Dental radiology	A	Experimental oncology
		B	Immunity/Infection/Inflammation
		C	General dental radiology
		D	Oral and maxillofacial radiology
7404	Conservative dentistry	A	Operative dentistry
		B	Endodontist
7405	Prosthetic dentistry	A	General prosthodontics
		B	Removable denture prosthodontics
		C	Fixed partial denture prosthodontics
		D	Oral and maxillofacial prosthetics
		E	Stomatognathic function
7406	Dental engineering/ Regenerative dentistry	A	Dental science and engineering
		B	Dental materials science
		C	Biomaterials science
		D	Adhesion dentistry
		E	Regenerative dentistry
		F	Oral implantology
7407	Surgical dentistry	A	Oral and maxillofacial surgery
		B	Clinical oncology
		C	Dental anesthesiology
		D	Pathobiological examination
		E	Oral maxillofacial reconstructive surgery

（Discipline: Dentistry）

Item Number	Research Field	Screening Sub-panel Number / Keyword		
7408	Orthodontic/ Pediatric dentistry		A	Orthodontics
			B	Pediatric dentistry
			C	Pediatric oral health science
			D	Stomatognathic function and mechanics
7409	Periodontal dentistry		A	Periodontal immunology
			B	Surgical periodontology
			C	Preventive periodontology
7410	Social dentistry		A	Dental hygiene (including public hygiene/nutrition)
			B	Preventive dentistry
			C	Oral health administration and management
			D	Forensic odontology
			E	Gerodontics
			F	Psychosomatic medicine dentistry

Discipline: Nursing

Item Number	Research Field	Screening Sub-panel Number / Keyword		
7501	Fundamental nursing		A	Nursing philosophy
			B	Nursing ethics
			C	Nursing art
			D	Nursing education
			E	Nursing management
			F	Nursing policy/Administration
			G	Disaster nursing
			H	History of nursing
7502	Clinical nursing		A	Critical care/Emergency nursing
			B	Perioperative nursing
			C	Adult nursing (chronic)
			D	Rehabilitation nursing
			E	Tarminal care
			F	Onclology nursing
7503	Lifelong developmental nursing		A	Family health nursing
			B	Maternal/Women's nursing
			C	Midwifery
			D	Child health nursing
7504	Community health/ Gerontological nurisng	1	A	Community health nursing
			B	Public health nursing
			C	School nursing
			D	Occupational and enviromental health nursing
		2	E	Gerontological nursing
			F	Psychiatric/Mantal health nursing
			G	Home nursing
			H	Visiting nursing
			J	Family health nursing
			K	Rehabilitation nursing

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

1. On the handling of research projects that are scheduled to be continued in FY2012 (hereinafter called "continued research projects").

(1) Specially Promoted Research

1) It is not necessary to submit application forms for research projects the continuation of which has been informally agreed in FY2011 (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 offer KAKENHI)

2) However, **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 41), the applicant should verify it. In this case, 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 FY2012 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 FY2012, (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" on page 142).

(2) Research categories except Specially Promoted Research

1) It is not necessary to submit application forms for research projects the continuation of which has been informally agreed in FY2011 (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 offer KAKENHI)

2) However, **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 41), 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), 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 FY2012, 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 FY2012 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 (KAKENHI (Series of Single-year Grants) or KAKENHI (Multi-year Fund)) granted will not change from the KAKENHI that was originally granted.

3) As a general rule, withdrawing from a continued research project and applying for a new research project will not be accepted.

However, 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 by October 27 (Thursday), 2011. (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 FY2012 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)".

Moreover, in case the applicant wishes to make a new application in order to modify the research plan of his/her continued research project, due to the effects of the Great East Japan Earthquake, he or she can apply for a new research project after submitting Form U – 2 "Report on the State of Affairs Regarding the Effects of the Great East Japan Earthquake" by October 13 (Thursday) 2011. (Documents that arrive later will not be accepted.) In addition, if the research project in question for which a new application has been made is adopted, the KAKENHI of FY2012 for the original continued research project will, as a general rule, not be granted. Even if it has been granted, the full amount should be refunded (see page 33).

2. On the Handling of Continued Research Projects in Which Students Have Joined as Project Members

Students, such as, for example, graduate students, cannot apply for Grants-in-Aid for Scientific Research. Therefore, 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. Moreover, students cannot participate in research projects as Co-Investigators (*kenkyū-buntansha*) or Co-Investigators (*renkei-kenkyūsha*).

However, 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" for the purposes of this process.

Moreover, only if they have been implementing research as Principal Investigators since before 2010, they can continue to implement the research project in question.

3. 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

From FY2012 on, a call for proposals for "Grants-in-Aid for Scientific Research KAKENHI" will be conducted together for "KAKENHI (Series of Single-year Grants)" and "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 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.

Moreover, 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 23）

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 of 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 FY2012, 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 (KAKENHI for Research Institutions)".

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 FY2012 call for proposals for this research category is scheduled to be issued in March 2012. 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 10 November 2011 deadline for applications under the below-listed (*1) categories, openly solicited by MEXT and JSPS from September 2011.

(2)Researchers who were unable to apply for the below-listed (*1) grant categories openly solicited by MEXT and JSPS in September 2011 because they were on leave for child birth and/or infant raising in FY 2011.

(Applicants should verify the details in the Application Procedures of March 2012.)

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.

(*1) Among the Grants-in-Aid for Scientific Research for FY2012 there are “Scientific Research on Innovative Areas”, “Specially Promoted Research”, “Scientific Research”, “Challenging Exploratory Research” and “Grant-in-Aid for Young Scientists”.

(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 logging in into e-Rad, and 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. Especially in the case a researcher who applied has subsequently transferred to another research institution, he or she cannot longer use the ID and the Password that has been provided by the research institution he or she belonged to before the transfer. Therefore, the new research institution the researcher belongs to needs to provide a new ID and Password.

In case there is a researcher who has scheduled to apply and who has no ID or Password, the research institution should deal with this matter as follows.

1) In order to provide the researcher with an ID and a Password, the research institution needs to have an Electronic Certificate for Research Institutions, an ID and a Password. 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 e-Rad electronic certificate, ID and password.

Note 2 Research institutions that already obtained an electronic certificate issued, an ID and a password issued do not need to obtain it again.

Note 3 It is not necessary to obtain an electronic certificate, an ID and a password for each research category of the KAKENHI.

2) After obtaining an ID and a password for use in 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. Please refer to the "Manual for Research Institutions to which the Researchers Belong (Grants-in-Aid for Scientific Research for Research Institutions)" for information on the concrete way how to provide them.

Note 1 Once the ID and the password have been provided they can be used, unless the research institution changes.

Note 2 In case the ID and the Password for e-Rad have already been provided, it is not necessary to provide them a second time.

Note 3 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 7 (Friday), 2011, 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 2011 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 Electronic Certificate for Research Institutions, an ID and a Password.

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) is scheduled to separately send a notification by e-mail addressed to each research institution (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 will also be put on the web page for inquiries as mentioned on page 98.)

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/08122501.html

(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: 9:30-17:30, 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

(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 23), 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

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.

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 Preparing the proposal for grant-in-aid prepared the Preparing 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.

<table>
<tr><td rowspan="3">Research category</td><td colspan="2">Proposal for grant-in-aid</td></tr>
<tr><td>First part</td><td>Second part</td></tr>
<tr><td>Application information (to be entered in the website)</td><td>Project description file</td></tr>
<tr><td>Specially Promoted Research (New) (English Version)</td><td rowspan="14">To be entered in the electronic application system</td><td>S-1-1 (1)</td></tr>
<tr><td>Specially Promoted Research (New) (Japanese Version)</td><td>S-1-1 (2)</td></tr>
<tr><td>Specially Promoted Research (Continued)</td><td>S-1-2</td></tr>
<tr><td>Scientific Research (S)</td><td>S-1-6</td></tr>
<tr><td>Scientific Research (A)</td><td>S-1-7</td></tr>
<tr><td>Research related to the screening panel for Overseas Academic Research</td><td>S-1-9</td></tr>
<tr><td>Scientific Research (B)</td><td>S-1-7</td></tr>
<tr><td>Research related to the screening panel for Overseas Academic Research</td><td>S-1-9</td></tr>
<tr><td>Scientific Research (C)</td><td>S-1-8</td></tr>
<tr><td>Challenging Exploratory Research</td><td>S-1-10</td></tr>
<tr><td>Grant-in-Aid for Young Scientists (A)</td><td>S-1-12</td></tr>
<tr><td>Grant-in-Aid for Young Scientists (B)</td><td>S-1-13</td></tr>
<tr><td>Continued Research Project (in the case of a major change in the research project)</td><td>S-1-14</td></tr>
</table>

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 login in e-Rad, using the ID and the password for e-Rad, access the "Electronic Application System", 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.)

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

November 10 (Thursday), 2011, 4:30 pm (This deadline should be observed strictly.)

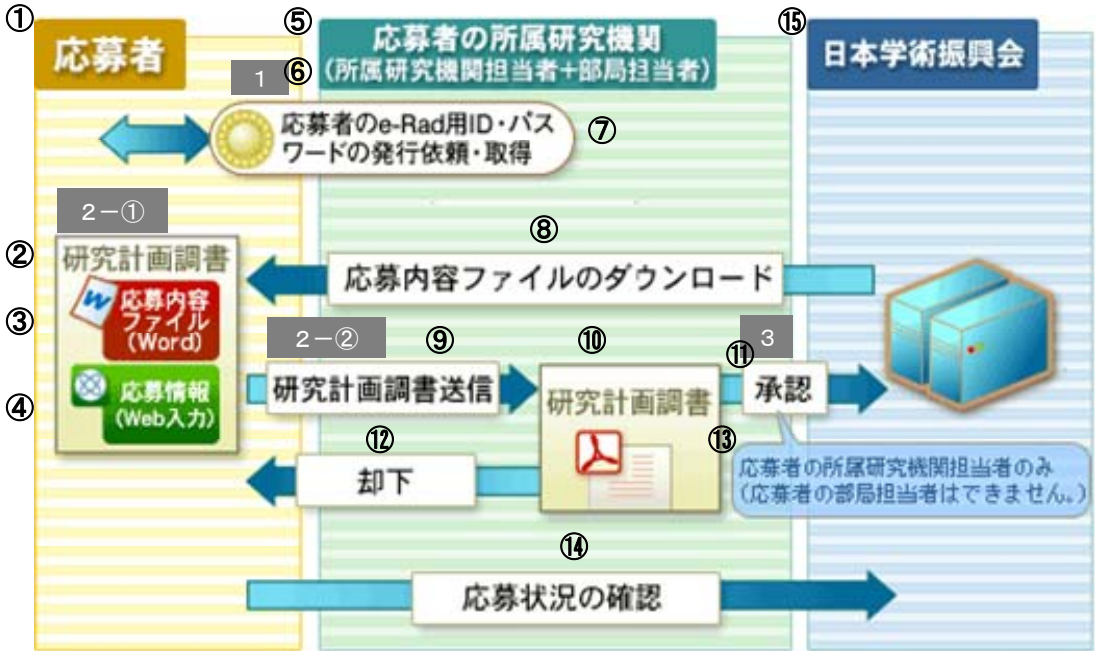
Note 1 Application documents that are submitted (sent) after this deadline will not be accepted. Therefore, the documents should be submitted (sent) well in advance.

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

(3) The electronic certificate, the ID and the password which are used in the e-Rad are designed to verify the research institution and 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



① 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 logs into e-Rad using the ID and the password he or she received, and then

accesses the “electronic application system” and prepares the proposal for grant-in-aid (PDF file), by entering the application information (to be entered in the website) and by attaching 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 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” .

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 Panels

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).

For “Specially Promoted Research”, the judges (i.e. screening committee) are organized separately for each of the three areas (1) humanities/social sciences, (2) science/engineering, and (3) biological sciences. They will make a selection of research projects for which an interview will be organized and conduct the interviews. This selection will be based on the proposals for grants-in-aid and the opinions in writing of the screening panel. (These opinions will be prepared by a panel comprising three persons in charge of writing the opinions, either domestic (based in Japan) or overseas.)

The screening is scheduled to be carried out in two stages. In the first stage of the screening (document-based screening), the committee consists of six judges in the case of “Scientific Research (S)”, “Scientific Research (A/B)” (“General”), and four judges in the case of “Scientific Research (C)”, “Challenging Exploratory Research”, and “Grant-in-Aid for Young Scientists (A/B)”. The judges carry out the screening individually. Subsequently, the second stage of the screening, which takes the form of a conference of judges conducting a screening (collegial screening), is scheduled to be carried out. Furthermore, in the case of “Scientific Research (S)”, screening through an interview is scheduled.

For “Scientific Research (A/B)” (screening division “Overseas Academic Research”) the examination of the applications will be conducted by a collegial meeting which will be organized separately for each the following areas:humanities, social sciences, science/engineering, and biological sciences.

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

2. Screening Methods, Key Points, and Other Matters

The “evaluation rules” (rules concerning the screening and evaluation for Grants-in-Aid for Scientific Research, called “screening and evaluation 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 evaluation rules" for FY2012 will be posted on the JSPS website around early October.)

3. 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)", "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)").
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

(March 30, 1965
Announcement of the MEXT No. 110)

Revision: Bunkoku No. 309 of 1968, Bunkoku No. 159 of 1981, Bunkoku No. 127 of 1985, Bunkoku No. 156 of 1986, Bunkoku No. 35 of 1998, Bunkoku No. 114 of 1999, Bunkoku No. 181 of 2000, Bunkoku No. 72 of 2001, Bunkoku No. 133 of 2001, Bunkoku No. 123 of 2002, Bunkoku No. 149 of 2003, Bunkoku No. 68 of 2004, Bunkoku No. 134 of 2004, Bunkoku No. 1 of 2005, Bunkoku No. 37 of 2006, Bunkoku No. 45 of 2007, and Bunkoku No. 64 of 2008.

Procedures on the Handling of Grants-in-Aid for Scientific Research are stipulated as follows.

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

(Purpose)

Article 1 The handling of Grants-in-Aid for Scientific Research should comply with the Law Concerning the Optimization of Budgets for Subsidiaries (No, 179, 1955, hereinafter "the Law") and the ordinance for the enactment of the Law Concerning the Optimization of Budgets for Subsidiaries (No. 255, 1955) and with the elements stipulated in these rules.

(Definitions)

Article 2 In these rules, a "Research Institution" is an institution in which academic research is conducted. The items listed below fall under the definition of "Research Institution".

(1) Universities or inter-university research institutions (including corporations that run such organizations and are designated by the Minister of Education, Culture, Sports, Science and Technology, as required by elements stipulated separately)

(2) MEXT's facilities and other organizations engaged in scientific research

(3) Technical colleges

(4) Laboratories and other institutions run by the national or local government, corporations based on a special law, laboratories run by such corporations or corporations based on Article 34 of the Civil Law (No. 89, 1996), that the Minister of Education, Culture, Sports, Science and Technology designates for scientific research, as required by elements stipulated separately.

2. In these rules, the "Principal Investigator" is the researcher who bears the responsibility for the implementation of the project in question as a member of that project that is the object of funding of a grant-in-aid for scientific research, as stipulated in article 2 clause 3 of the Law.
3. In these rules, the "Co-Investigator" (*kenkyū-buntansha*) is a researcher who conducts the project in question in cooperation with the Principal Investigator as a member of that project that is the object of funding of a grant-in-aid for scientific research and in which two or more researchers jointly conduct one research project.
4. In these rules, the "Co-Investigator" (*renkei-kenkyūsha*) is a researcher who participates to research that is a project that is the object of funding of a grant-in-aid for scientific research, in cooperation with the Principal Investigator or the Co-Investigator(s) (*kenkyū-buntansha*), and under the supervision of the Principal Investigator or the Co-Investigator(s) (*kenkyū-buntansha*).
5. In these rules, a "Research Collaborator" is a person, other than the Principal Investigator, the Co-Investigator(s) (*kenkyū-buntansha*) or the Co-Investigator(s) (*renkei-kenkyūsha*), who collaborates in research that is a project that is the object of funding of a grant-in-aid for scientific research.
6. In these rules, "illicit use" is use of the grant-in-aid for scientific research for other purposes, intentionally or by gross negligence, or use that violates the content of the decision to fund the grant-in-aid for scientific research, or the conditions it implies.
7. In these rules, "illicit activities" are forgery, manipulation or plagiarism of data, information or survey results that are appearing in published research results within a project that is the object of funding of a grant-in-aid for scientific research.
8. Among the institutions to which belong people who engage in research and who contribute to the promotion of science, the research laboratories and other institutions or corporations mainly engaging in research (that are established by a corporation or another legal person that is set up according to the laws and ordinances of Japan) are considered as "research institutions", as mentioned in this clause, if they are designated by the Minister of Education, Culture, Sports, Science and Technology, as required by elements stipulated separately.

(The objects of Grants-in-Aid for Scientific Research)

Article 3 Grants-in-Aid for Scientific Research shall mean funding for projects listed under each of the following points.

(1) Basic research activities that are scientifically important and are conducted by a researcher either individually or in as a team of two or more researchers on the same project. This research may also include practical research that is in an elementary stage.

(2) Results of scientific research made public by an individual or a scientific organization

(hereinafter "publication of research results")

(3) Other projects concerning academic research, as stipulated separately by the Minister of Education, Culture, Sports, Science and Technology.

2. Based on the rules in Article 15, Number 1 of the Law on the Japan Society for the Promotion of Science (Law No. 159 of 2002), the Minister of Education, Culture, Sports, Science and Technology provides Grants-in-Aid for Scientific Research to projects conducted by the Japan Society for the Promotion of Science (hereinafter called "JSPS"), as required by elements stipulated separately.

(Projects for which no Grants-in-Aid for Scientific Research will be provided)

Article 4 Notwithstanding of the previous article, no Grants-in-Aid for Scientific Research will be funded for a period stipulated in each of the following numbered points for projects that are conducted by persons (including academic societies, and this also applies for the articles mentioned below) who are mentioned in the following numbered points. However, this does not apply to projects other than projects of which the decision to provide the funding of grants-in-aid for scientific research has been cancelled (hereinafter "project subject to grant cancellation"), according to Clause 1, Article 17 of the Law, for which persons mentioned in number 4 receive funding, and to projects that are conducted based on a plan identical to the proposal for grant-in-aid mentioned in Clause 1 and Clause 3, Article 6.

(1) A person who made fraudulent use of a grant-in-aid for scientific research in a project subject to grant cancellation: from 2 to 5 years starting from the next fiscal year following the fiscal year in which that person has been ordered to refund the grant-in-aid for scientific research related to a project subject to grant cancellation, in accordance with Clause 1, Article 18 of the Law. The exact length of the period deemed appropriate (between 2 and 5 years) will be decided, taking into consideration the content of the fraudulent use in question and other factors.

(2) A person who conspired with a person as mentioned in the previous point in fraudulent use of a grant-in-aid for scientific research: the same period as the period during which no grant will be funded for the project conducted by the person mentioned in the previous point, in accordance with the rule in the previous point.

(3) A member of a project subject to grant cancellation who used a grant-in-aid for scientific research in violation of Clause 1, Article 11 of the Law: 2 years starting from the next fiscal year following the fiscal year in which that member has been ordered to refund the grant-in-aid for scientific research related to a project subject to grant cancellation. (This does not apply to persons mentioned in the previous point 2.)

(4) A Principal Investigator or a Co-Investigator (*kenkyū-buntansha*) who conducted a project

subject to grant cancellation in cooperation with a Principal Investigator or a Co-Investigator (*kenkyū-buntansha*) who falls under point 1. or 3. (except persons mentioned under the previous point; the same applies to the points below), or a Principal Investigator or a Co-Investigator (*kenkyū-buntansha*) of a project subject to grant cancellation in which a Co-Investigator (*renkei-kenkyūsha*) who falls under point 1. participated, or a Principal Investigator or a Co-Investigator (*kenkyū-buntansha*) of a project subject to grant cancellation in which a Research Collaborator who falls under the same point 1. cooperated: 1 year following the fiscal year in which he/she has been ordered to refund the grant-in-aid for scientific research related to a project subject to grant cancellation, in accordance with Clause 1, Article 18 of the Law.

(5) A person who obtained funding by a grant-in-aid for scientific research by deceit or other fraudulent means, or a person who conspired in this deceit or other fraudulent means: 5 years starting from the next fiscal year following the fiscal year in which that person has been ordered to refund the grant-in-aid for scientific research.

(6) A person of whom it has been established that he/she committed fraudulent acts (including cases where it has been established that the person bears responsibility for the content of a research paper that is connected with to research results of which it has been established that fraudulent acts have been committed): from 1 to 10 years starting from the next fiscal year following the fiscal year in which is has been established that the fraudulent acts in question have been committed. The exact length of the period deemed appropriate (between 1 and 10 years) will be decided in the Academic Deliberation Council for Science and Technology, taking into consideration the content of the fraudulent acts in question and other elements.

2. Notwithstanding the previous article, no Grants-in-Aid for Scientific Research will be provided during a period stipulated separately by the Minister of Education, Culture, Sports, Science and Technology for projects conducted by persons who are listed under each of the following points, and of whom it has been decided that no benefit that is provided by the state or by independent administrative legal entities, as stipulated separately by the Minister of Education, Culture, Sports, Science and Technology (hereinafter called “particular benefit”), will be provided for a certain period.

(1) a person who used a particular benefit for other purposes than the one is intended for, or a person who conspired in use for other purposes in question.

(2) for a project that is the object of funding of a particular benefit, a person who violated the content of the decision to fund him/her a particular benefit, the conditions connected to that funding and other laws and ordinances, or the punishment based on these laws and ordinances by the head of an independent administrative legal entity or a national institution.

(3) a person who obtained the funding a particular benefit by deceit or other fraudulent means,

or a person conspired in its use by deceit or other fraudulent means.

(4) a person of whom it has been established that he/she committed fraudulent acts in a project funded with a particular benefit.

(Applicants for a Grant)

Article 5 The following persons can apply for Grants-in-Aid for Scientific Research mentioned in Numbers 1 and 2, Clause 1, Article 3 (excluding grants mentioned in Clause 2 of the same article; hereinafter called "grant").

(1) The representative of the researchers who conduct scientific research funded with grants for scientific research.

(2) An individual who publishes research results or the representative of an academic society that publishes such results funded with grants for the publication of research results.

(Proposal for grant-in-aid)

Article 6 Persons who attempt to apply for grants (excluding persons who conduct screening and evaluation in JSPS) shall mean persons who beforehand submit a Proposal for Grant-in-Aid on the scientific research or the publication of research results, in a form that is stipulated separately, to the Minister of Education, Culture, Sports, Science and Technology.

2 The submission deadline for the Proposal for Grant-in-Aid mentioned in the previous section is announced every year by the Minister of Education, Culture, Sports, Science and Technology.

3 Persons who attempt to apply for grants, although they conduct screening and evaluation in JSPS, shall mean persons who submit Proposals for Grant-in-Aid concerning their scientific research and other matters to JSPS, as required by elements stipulated separately.

4 The deadline for the abovementioned submission of a proposal for grant-in-aid is announced by JSPS every year.

(Decisions concerning the grants)

Article 7 The Minister of Education, Culture, Sports, Science and Technology decides on the persons who attempt to obtain grants and on the planned amount that they attempt to obtain (hereinafter called the "amount planned to be provided"), based on the Proposal for Grant-in-Aid mentioned in Clause 1 and 3 of the previous article, and beforehand notifies the amount planned to be provided to this person.

2 When deciding on the persons who attempt to obtain grants and the amount planned to be provided, the Minister of Education, Culture, Sports, Science and Technology hears the opinion of the Academic Deliberation Council for Science and Technology concerning the Proposals for Grant-in-Aid that have been submitted to the Minister of Education, Culture, Sports, Science

and Technology. However, in accordance with the provisions of Clause 3 of the previous article, concerning Proposals for Grant-in-Aid that have been submitted to JSPS, receiving a report from JSPS is sufficient, and it is not necessary to hear the opinion of the Academic Deliberation Council for Science and Technology.

Article 8 When persons who received the notification mentioned in Clause 1 of the previous article attempt to apply for grants, they have to submit a grant application form of which the form has been stipulated separately to the Minister of Education, Culture, Sports, Science and Technology, by the time to be prescribed by the Minister of Education, Culture, Sports, Science and Technology.

2 Based on the grant application form mentioned in the previous clause, the Minister of Education, Culture, Sports, Science and Technology decides on the provision of the grant, and notifies the contents of this decision and, in case conditions have been attached to it, these conditions to the person who applied for a grant.

(Changes in the scientific research and other matters)

Article 9 When recipients of a grant attempt to change the contents of the scientific research and other matters or the allocation of the budget (excluding minor changes stipulated separately by the Minister of Education, Culture, Sports, Science and Technology), they should beforehand obtain the approval of the Minister of Education, Culture, Sports, Science and Technology.

(Limitation on the use of the grant)

Article 10 The recipients of a grant should restrict the use of the grant to the costs necessary for the scientific research etc.

(Report on results)

Article 11 Upon completing scientific research etc., the recipients of the grant should promptly fill in and submit the form for reporting the results to the Minister of Education, Culture, Sports, Science and Technology. This also applies where the fiscal year concerning the decision concerning the relevant grant has terminated. The form for the report is available elsewhere.

2 In case there is equipment, furnishings or books (hereinafter called “equipment”) that has been purchased using the grant, a detailed statement on the purchase of equipment and other matters should be attached to the report on results mentioned in the previous clause, using a form stipulated separately.

3 A report on results mentioned in the latter part of the clause 1 should be attached with a document specifying a plan on the scientific research etc. scheduled for the fiscal year that follows.

(Final decision concerning the amount of the grant)

Article 12 After receiving the report mentioned in the early part of Clause 1 in the previous article, the Minister of Education, Culture, Sports, Science and Technology checks the report and conducts an investigation, as necessary. If JSPS concludes that the result of the scientific research etc. agrees with the decision concerning the grant and conditions included in it, JSPS may decide the amount of the grant and report it to the relevant recipient.

(Arrangement and storage of accounts and other matters)

Article 13 Recipients of a grant should retain the accounts on the balance of the grant, retain the receipts and other related documents, and store these accounts and documents for five years after the end of the fiscal year in which the grant has been provided.

(Investigation on accounting)

Article 14 When deemed necessary, the Minister of Education, Culture, Sports, Science and Technology may investigate or issue directives concerning the grant recipient's accounting or demand that a recipient reports on its accounting.

(Investigation on the state of the research and other matters)

Article 15 When deemed necessary, the Minister of Education, Culture, Sports, Science and Technology may request that a grant recipient files a report on the status of his/her scientific research and other matters, or may investigate the status of his/her scientific research and other matters.

(Publication of progress of research)

Article 16 In printing or publication by other means, the Minister of Education, Culture, Sports, Science and Technology may publish all or part of descriptions in the report of results of scientific research and the report mentioned in the previous article that concern the progress of research.

(Donation of equipment and suchlike)

Article 17 If the recipient of a grant mentioned in (1) of Article 5 partly appropriated the grant to the purchase of equipment etc. the recipient should promptly donate the equipment etc. to one or more of the research institutions that the recipient belongs to.

2 In the event that promptly donating the equipment and other things causes inconvenience to the research, recipients of grants mentioned in (1) of Article 5 are allowed not to donate the equipment in question, until the inconvenience to the research in question is resolved, provided that they obtained the approval of the Minister of Education, Culture, Sports, Science and Technology. This applies notwithstanding the provisions in the previous clause.

Article 18 The Minister of Education, Culture, Sports, Science and Technology decides separately on necessary issues concerning Grants-in-Aid for Scientific Research mentioned in Article 3, Clause 1, Number 3.

(Other)

Article 19 The Minister of Education, Culture, Sports, Science and Technology decides on necessary issues concerning the handling of grants other than the issues that have been stipulated in these rules, as they arise.

Additional Rules

These rules take effect from April 1, 1965.

Additional Rule (Bunkoku 309 of November 30, 1968)

These rules take effect from November 30, 1968).

Additional Rule (Bunkoku 159 of October 15, 1981)

This Announcement will be enforced from the day of its promulgation.

Additional Rule (Bunkoku 127 of November 2, 1985)

This Announcement will be enforced from November 2, 1985, and will take effect for grants after FY1985.

Additional Rule (Bunkoku 156 of December 25, 1986)

This Announcement will be enforced from December 25, 1986, and will take effect for grants after FY1986.

Additional Rule (Bunkoku 35 of March 19, 1998)

This Announcement will be enforced from March 19, 1998, and will take effect for grants after FY1998.

Additional Rule (Bunkoku 114 of May 17, 1999)

This Announcement will be enforced from the day of its promulgation and will take effect from April 11, 1999.

Additional Rule (Bunkoku 181 of December 11, 2000)

This Announcement will be enforced from the day (January 6, 2001) of the enforcement of the Law Revising a Part of the Cabinet Act (Law No. 88 of 1999).

Additional Rule (Bunkoku 72 of April 19, 2001)

This Announcement will be enforced from the day of its promulgation and will take effect from April 19, 2001.

Additional Rule (Bunkoku 133 of August 2, 2001)

1 This Announcement will be enforced from the day of its promulgation.

2 Legal entities that, at the time of the enforcement of this announcement, are actually research institutions according to the rules in Article 2, Number 3 of the Rules for the Handling of Grants-in-Aid for Scientific Research before the revision, and institutions that, at the time of the enforcement of this announcement, actually received the designation according to the rules in Number 4 of the same article, will be considered as research institutions that received the designation according to the rules in Article 2, Number 4 of the revised Rules for the Handling of Grants-in-Aid for Scientific Research.

Additional Rule (Bunkoku 123 of June 28, 2002)

This Announcement will be enforced from the day of its promulgation and will take effect for grants after FY2002.

Additional Rule (Bunkoku 149 of September 12, 2003)

1 However, the revised rules in Article 3, Clause 2, the revised rules in Article 5, Clause 1, Clause 3 and Clause 4, and the revised rules in Article 6, Clause 2 will be enforced from October 1, 2003.

2 The rules in Article 3, Clause 3 of the revised Rules for the Handling of Grants-in-Aid for Scientific Research, that are stipulated in this Announcement, will not apply for projects conducted by researchers who in the past conducted a project subject to grant cancellation of which the day when the refunding of the Grant-in-Aid for Scientific Research is ordered falls before the day of the enforcement of this Announcement.

Additional Rule (Bunkoku 68 of April 1, 2004)

1 This Announcement will be enforced from April 1, 2004.

2 The rules in Article 3, Clause 3, Number 3 of the revised Rules for the Handling of Grants-in-Aid for Scientific Research, that are stipulated in this Announcement, will not apply to researchers who conducted a project subject to grant cancellation, using a Grant-in-Aid for Scientific Research of which the decision to fund was made before the enforcement of this Announcement.

Additional Rule (Bunkoku 1 of January 24, 2005)

1 This Announcement will be enforced from the day of its promulgation.

2 The rules in Article 3, Clause 4 and Clause 5 of the revised Rules for the Handling of Grants-in-Aid for Scientific Research, that are stipulated in this Announcement, will not apply to projects conducted by researchers who conducted a project of which the day when the refunding of the Grant-in-Aid for Scientific Research is ordered falls before the day of the enforcement of this Announcement, or researchers who conspired with these researchers in question.

Additional Rule (Bunkoku 37 of March 27, 2006)

This Announcement will be enforced from April 1, 2006.

Additional Rule (Bunkoku 45 of March 30, 2007)

This Announcement will be enforced from April 1, 2007.

Additional Rule (Bunkoku 64 of May 19, 2008)

1 This Announcement will take effect from May 19, 2008, and will take effect for grants after FY2008. However, the revised rules in Article 2, Clause 1, Number 4 take effect from the day of the enforcement of the Law on the Adjustment of Related Laws Upon the Enforcement of the Law on General Corporate Juridical Persons and General Foundational Juridical Persons, and the Law on the Authorization of Public Interest Incorporated Associations and Public Interest Incorporated Foundations (Law No. 50 of 2006).

2 The rules in Article 4, Clause 1, Number 1 and Number 3 of the revised Rules for the Handling of Grants-in-Aid for Scientific Research (hereinafter called "New Rules"), stipulated in this Announcement, do not apply to persons who committed illicit use of grants in projects of which the decision to fund the Grant-in-Aid for Scientific Research has been cancelled, in accordance with the rules in Article 17, Clause 1 of the Law Concerning the Optimization of the Enforcement of Budgets for Grants (Law No. 179 of 1955; hereinafter called "the Law"), and of which the day when the refunding of the Grant-in-Aid for Scientific Research is ordered falls before September 12, 2003, in accordance with the rules in Article 18, Clause 1 of the Law. The rules in Article 4, Clause 1, Number 1 and Number 3 of the New Rules do not apply either to recipients of funded projects who conducted use of Grants-in-Aid for Scientific Research in violation of the rules in Article 11, Clause 1 of the Law (excluding persons who are defined as recipients of funded projects according to the Article 2, Clause 3 of the Law and who fall under Article 4, Clause 1, Number 1 or Number 2 of the New Rules).

3 The rules in Article 4, Clause 1, Number 4 of the New Rules do not apply to Principal Investigators or Co-Investigators (*kenkyū-buntansha*) of projects of which the decision to fund has been taken before April 1, 2004.

4 The rules in Article 4, Clause 1, Number 2 and Number 5 of the New Rules do not apply to persons who conspired in the fraudulent use of Grants-in-Aid for Scientific Research, or persons who received the funding of Grants-in-Aid for Scientific Research by deceit or other fraudulent means, or persons who conspired in the use of deceit or other fraudulent means in question, in projects of which the day when the refunding of the Grant-in-Aid for Scientific Research is ordered falls before January 24, 2005.

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

(Rule No. 17, October 7, 2003)

Revision: Rule No. 9, April 14, 2004
Revision: Rule No. 14, September 10, 2004
Revision: Rule No. 1, February 2, 2005
Revision: Rule No. 7, April 7, 2005
Revision: Rule No. 9, April 14, 2006
Revision: Rule No. 12, April 2, 2007
Revision: Rule No. 9, June 10, 2008
Revision: Rule No. 6, April 19, 2010
Revision: Rule No. 21, September 7, 2010
Revision: Rule No. 18, April 25, 2011
Revision: Rule No. 20, April 28, 2011

(General rules)

Article 1 The handling of Grants-in-Aid for Scientific Research (KAKENHI (Series of Single-year Grants)), hereinafter "grants") provided by the Japan Society for the Promotion of Science (hereinafter "JSPS") should comply with the Law Concerning the Optimization of Budgets for Subsidiaries (No, 179, 1955, hereinafter "the Law"), the ordinance for the enactment of the Law Concerning the Optimization of Budgets for Subsidiaries (No. 255, 1955), Japan Society for the Promotion of Science Act (No. 159, 2002) and the handling rules for the Grants-in-Aid for Scientific Research (notification by Ministry of Education, No. 110, 1965, hereinafter "Handling Rules") and the Procedures on the Handling of JSPS Grants-in-Aid for Scientific Research (KAKENHI (Series of Single-year Grants)) (hereinafter "Handling Procedures").

(Objectives)

Article 2 The aim of the Handling Procedures is to specify items for handling the object, application, granting and suchlike concerning a grant provided by JSPS to researchers so that the grant can be appropriately and efficiently used in compliance with Clause 1, Article 16 of the Requirements for Grants-in-Aid for Scientific Research (scientific research etc.) (decision by the Minister of Education, April 12, 1999, hereinafter "Grant Requirements") and Article 14 of Japan Society for the Promotion of Science Work Procedures (Rule No. 1, 2003).

(Definitions)

Article 3 In the Handling Procedures, Grants-in-Aid for Scientific Research (Scientific Research etc.) refers to the following items as specified in Article 3 of the Grant Requirements.

(1) The cost of scientific research that concerns:

a) Specially Promoted Research

b) Scientific Research;

c) Challenging Exploratory Research;

d) Young Scientists ;

e) Research Activity Start-up; or

f) Encouragement of Scientists

(2) Grant-in-Aid for JSPS Fellows

(3) Grant-in-Aid for Creative Scientific Research

(4) Grant-in-Aid for Publication of Scientific Research Results (except those concerning the publication of research results)

2. In these Handling Procedures, a "research institution" refers to an institution as stipulated in Clause 1, Article 2 of the Handling Rules and to an institution in accordance with Clause 8 of the same Article. A research institution is an institution in which academic research is conducted and which falls under any of the definitions mentioned under points 1 to 4 and under point 5.

(1) Universities or inter-university research institutions (including corporations that run such organizations and are designated by the Minister of Education, Culture, Sports, Science and Technology)

(2) MEXT's facilities and other organizations engaged in scientific research

(3) Technical colleges

(4) Laboratories and other institutions run by the national or local government, corporations based on a special law, laboratories run by such corporations or corporations based on Article 34 of the Civil Law (No. 89, 1996), that the Minister of Education, Culture, Sports, Science and Technology designates for scientific research

(5) Among the institutions to which belong people who engage in research and who contribute to the promotion of science, the research laboratories and other institutions or corporations mainly engaging in research (that are established by a corporation or another legal person that is set up according to the laws and ordinances of Japan) are considered as "research institutions", as mentioned in this clause, if they are designated by the Minister of Education, Culture, Sports, Science and Technology.

3. In these Handling Procedures the "Principal Investigator" is the researcher who bears the responsibility for the implementation of the project in question as a member of that project that

is the object of funding of a grant-in-aid for scientific research, as stipulated in article 2 clause 3 of the Law.

4. In these Handling Procedures the "Co-Investigator" (*kenkyū-buntansha*) is a researcher who conducts the project in question in cooperation with the Principal Investigator as a member of that project that is the object of funding of a grant-in-aid for scientific research and in which two or more researchers jointly conduct one research project.
5. In these Handling Procedures the "Co-Investigator" (*renkei-kenkyūsha*) is a researcher who participates to research that is a project that is the object of funding of a grant-in-aid for scientific research, in cooperation with the Principal Investigator or the Co-Investigator(s) (*kenkyū-buntansha*), and under the supervision of the Principal Investigator or the Co-Investigator(s) (*kenkyū-buntansha*).
6. In these Handling Procedures a "Research Collaborator" is a person, other than the Principal Investigator, the Co-Investigator(s) (*kenkyū-buntansha*) or the Co-Investigator(s) (*renkei-kenkyūsha*), who collaborates in research that is a project that is the object of funding of a grant-in-aid for scientific research.
7. In these Handling Procedures "illicit use" is use of the grant-in-aid for scientific research for other purposes, intentionally or by gross negligence, or use that violates the content of the decision to fund the grant-in-aid for scientific research, or the conditions it implies.
8. In these Handling Procedures "illicit activities" are forgery, manipulation or plagiarism of data, information or survey results that are appearing in published research results within a project that is the object of funding of a grant-in-aid for scientific research.

(The objects of grants)

Article 4 Projects that are object of funding (hereinafter "funded project(s)") with grants should meet the following conditions.

(1) Basic research activities that are scientifically important and are conducted by a researcher either individually or in as a team of two or more researchers on the same project. This research may also include practical research that is in an elementary stage.

(2) Results of scientific research made public by an individual or a scientific organization (hereinafter "publication of research results")

2. The funded costs should be those necessary for a funded project and deemed by JSPS as deserving of a grant.

(Projects for which no grants will be provided)

Article 5 Notwithstanding Clause 1 of the previous article, no grant will be funded for a period stipulated in each of the following numbered points for projects that are conducted by persons

(including academic societies, and this also applies for the articles mentioned below) who are mentioned in the following numbered points. However, this does not apply to projects other than projects of which the decision to provide the funding of grants-in-aid for scientific research has been cancelled (hereinafter "project subject to grant cancellation"), according to Clause 1, Article 17 of the Law, for which persons mentioned in number 4 receive funding, and to projects that are conducted based on a plan identical to the proposal for grant-in-aid mentioned in Clause 1, Article 7.

1. A person who made fraudulent use of a grant-in-aid for scientific research in a project subject to grant cancellation:
   from 2 to 5 years starting from the next fiscal year following the fiscal year in which that person has been ordered to refund the grant-in-aid for scientific research related to a project subject to grant cancellation, in accordance with Clause 1, Article 18 of the Law. The exact length of the period deemed appropriate (between 2 and 5 years) will be decided, taking into consideration the content of the fraudulent use in question and other factors.
2. A person who conspired with a person as mentioned in the previous point in fraudulent use of a grant-in-aid for scientific research:
   the same period as the period during which no grant will be funded for the project conducted by the person mentioned in the previous point, in accordance with the rule in the previous point.
3. A member of a project subject to grant cancellation who used a grant-in-aid for scientific research in violation of Clause 1, Article 11 of the Law:
   2 years starting from the next fiscal year following the fiscal year in which that member has been ordered to refund the grant-in-aid for scientific research related to a project subject to grant cancellation. (This does not apply to persons mentioned in the previous point 2.)
4. A Principal Investigator or a Co-Investigator (*kenkyū-buntansha*) who conducted a project subject to grant cancellation in cooperation with a Principal Investigator or a Co-Investigator (*kenkyū-buntansha*) who falls under point 1. or 3. (except persons mentioned under the previous point; the same applies to the points below), or a Principal Investigator or a Co-Investigator (*kenkyū-buntansha*) of a project subject to grant cancellation in which a Co-Investigator (*renkei-kenkyūsha*) who falls under point 1. participated, or a Principal Investigator or a Co-Investigator (*kenkyū-buntansha*) of a project subject to grant cancellation in which a Research Collaborator who falls under the same point 1. cooperated:
   1 year following the fiscal year in which he/she has been ordered to refund the grant-in-aid for scientific research related to a project subject to grant cancellation, in accordance with Clause 1, Article 18 of the Law.
5. A person who obtained funding by a grant-in-aid for scientific research by deceit or other

fraudulent means, or a person who conspired in this deceit or other fraudulent means:

5 years starting from the next fiscal year following the fiscal year in which that person has been ordered to refund the grant-in-aid for scientific research.

6. A person of whom it has been established that he/she committed fraudulent acts (including cases where it has been established that the person bears responsibility for the content of a research paper that is connected to research results of which it has been established that fraudulent acts have been committed): from 1 to 10 years starting from the next fiscal year following the fiscal year in which is has been established that the fraudulent acts in question have been committed. The exact length of the period deemed appropriate (between 1 and 10 years) will be decided, taking into consideration the content of the fraudulent acts in question and other elements.

2. Notwithstanding the provision of Clause 1 of the previous Article, no KAKENHI (Series of Single-year Grants) will be awarded for a period during which it has been decided that no funding provided from the KAKENHI Multi-year Fund will be awarded for projects that are conducted by persons of whom it has been decided that no funding provided from the KAKENHI Multi-year Fund (hereinafter "KAKENHI (Multi-year Fund") in accordance with the provision of Clause 1, Article 18 of the Japan Society for the Promotion of Science Act will be funded for a certain period and who are mentioned in each of the following numbered points. However, this does not apply to projects for which persons mentioned in point 4 already receive funding, and to projects conducted based on a plan identical to the proposal for grant-in-aid mentioned in Clause 1, Article 7.

(1) Persons who made fraudulent use of a KAKENHI (Multi-year Fund).

(2) Persons who conspired in the fraudulent use of a KAKENHI (Multi-year Fund).

(3) Members of a funded project who made use of a KAKENHI (Multi-year Fund) in violation of the provision of Clause 1, Article 11 of the Law which will be applied *mutatis mutandis* pursuant to the provision of Clause 2, Article 17 of the Japan Society for the Promotion of Science Act (This does not apply to persons who fall under the previous point 2).

(4) Principal Investigators or Co-Investigators (*kenkyū-buntansha*) who conducted a project for which the decision to grant the funding has been cancelled (hereinafter "funded project subject to grant cancellation") in cooperation with a Principal Investigator or a Co-Investigator (*kenkyū-buntansha*) who falls under points 1 or 3 (This does not apply to persons mentioned under the previous point; the same applies to the points below), or Principal Investigators or Co-Investigators (*kenkyū-buntansha*) of a funded project subject to grant cancellation in which a Co-Investigator (*renkei-kenkyūsha*) who falls under point 1 participated or a funded project subject to grant cancellation in which a Research Collaborator who falls under the same point collaborated.

(5) Persons who obtained funding of a KAKENHI (Multi-year Fund) by deceit or other

fraudulent means, or a person who conspired in this deceit or other fraudulent means.

(6) Persons of whom it has been established that they committed fraudulent acts.

3. Notwithstanding Clause 1 of the previous article, a grant will not be granted for a period stipulated in Article 2 of the Decision of the Minister of Education, Culture, Sports, Science and Technology of August 24, 2004 for projects conducted by a person mentioned in each of the following numbered points, about whom it has been decided not to provide him/her a particular benefit for a fixed period, as stipulated in Article 1.

(1) a person who used a particular benefit for other purposes than the one it is intended for, or a person who conspired in use for other purposes in question.

(2) for a project that is the object of funding of a particular benefit, a person who violated the content of the decision to fund him/her a particular benefit, the conditions connected to that funding and other laws and ordinances, or the punishment based on these laws and ordinances by the head of an independent administrative legal entity or a national institution.

(3) a person who obtained the funding a particular benefit by deceit or other fraudulent means, or a person conspired in its use by deceit or other fraudulent means.

(4) a person of whom it has been established that he/she committed fraudulent acts in a project funded with a particular benefit.

(Applicants for a Grant)

Article 6 Persons are eligible to apply for a grant mentioned in Clause 1, Article 4, should meet the following requirements.

(1) Applicants for a grant concerning scientific research should fall into the following categories:

a) If researchers who belong to a research institution conduct scientific research, the representative of the researchers who conduct the scientific research in question;

b) If one researcher (excluding JSPS Fellows) who does not belong to a research conducts scientific research alone, that researcher in question;

c) If a JSPS Fellow conducts scientific research, that JSPS Fellow in question;

d) If a Foreign JSPS Fellow and a host researcher jointly conduct scientific research, the host researcher

(2) An individual who publishes research results or the representative of an academic society that publishes such results funded with grants for the publication of research results.

(Proposal for grant-in-aid)

Article 7 An application for a grant requires that a proposal for grant-in-aid on scientific research or the publication of research results (hereinafter “scientific research etc.”) be submitted to JSPS. The form for the proposal for grant-in-aid is available.

2. The deadline for the abovementioned submission of a proposal for grant-in-aid is announced by JSPS every year.

(Notification of the planned amount of grant)

Article 8 In accordance with a proposal for grant-in-aid mentioned in Clause 1 of the previous article, JSPS should decide the recipient of a grant and the planned amount of money given to the recipient (hereinafter "planned amount of grant") and report the amount to the recipient in advance.

(Allocation of the screening and other matters)

Article 9 When making decisions concerning the recipient of a grant or the planned amount of a grant in accordance with the previous article, JSPS should consult the Grants-in-Aid for Scientific Research Committee to discuss issues concerning the allocation of grants and suchlike.

2. Rules on the organization and operation of the abovementioned committee are stated elsewhere.

(Grant application form)

Article 10 When filing an application for a grant, an applicant who received a notification mentioned in Article 8 should fill in and submit the grant application form to JSPS by the deadline specified by JSPS.

(Decisions concerning the grants)

Article 11 Upon receiving a request for a grant in accordance with the previous article, JSPS should check documents concerning the request and conduct field survey or suchlike necessary, to make sure that the project deserves the grant and the calculation of the amount of the grant is not erroneous.

2. If JSPS considers that a grant should be given as a result of the abovementioned survey, it should promptly decide on providing the grant.

3. JSPS stipulates the following requirements for providing a grant.

(1) A change in details and cost allocation of scientific research etc. conducted by a grant recipient requires that the approval of JSPS be obtained in advance.

However, this may not apply to a minor change that is decided by JSPS in consultation with the Minister of Education, Culture, Sports, Science and Technology without compromising the objective of the funded project.

(2) Grant recipients should obtain the approval of JSPS in stopping or discontinuing a funded project.

(3) If a funded project cannot be completed within the scheduled period or if the fulfillment of a funded project seems too difficult, the grant recipient should promptly report it to JSPS and follow its directions.

(4) To sign a contract to fulfill a funded project and make the relevant payments, the grant recipient should, in compliance with the national contract and the provisions concerning payment, endeavor to maintain the high level of efficiency in the use of costs so that minimum and equitable costs can result in maximum benefit.

4. After making a decision concerning a grant, JSPS should promptly report details of the decision and the conditions it includes to the relevant applicant.

(Withdrawal of the application)

Article 12 An applicant for a grant may withdraw the application by the date specified by JSPS if the applicant receives the notification mentioned in Clause 4 of the previous article and if the applicant is dissatisfied with the details of the decision on a grant concerning the notification or conditions included in the decision.

2. Withdrawal of an application in accordance with the abovementioned provisions is considered that no decision on a grant to the relevant application has been made.

(Limitation on the use of the grant)

Article 13 The recipients of a grant should restrict the use of the grant to the costs necessary for the scientific research etc.

(Report on results)

Article 14 Upon completing scientific research etc., the recipients of the grant should promptly fill in and submit the form for reporting the results to JSPS. This also applies where the fiscal year concerning the decision concerning the relevant grant has terminated. The form for the report is available elsewhere.

2. A report on results mentioned in the latter part of the previous clause should be attached with a document specifying a plan on the scientific research etc. scheduled for the fiscal year that follows.

(Final decision concerning the amount of the grant)

Article 15 After receiving the report mentioned in the early part of Clause 1 in the previous article, JSPS checks the report and conducts an investigation, as necessary. If JSPS concludes that the

result of the scientific research etc. agrees with the decision concerning the grant and conditions included in it, JSPS may decide the amount of the grant and report it to the relevant recipient.

(Accounting Records and other documents)

Article 16 Recipients of a grant should retain the accounts on the balance of the grant and retain the receipts and other related documents for five years after the end of the fiscal year in which the grant has been provided.

2. If persons who did not submit the report on the research achievements by the time prescribed by JSPS in the previous Clause do not submit the report on the research achievements without particular reason by the time separately and additionally instructed by JSPS, JSPS will, notwithstanding the provisions of Article 8, not notify these persons of the amount planned to be provided. This also applies to persons who do not submit the report on the research achievements for KAKENHI (Series of Single-year Grants) mentioned in Clause 1, Article 13 of the Handling Rules, or the report on the research achievements for KAKENHI (Multi-year Fund) mentioned in Clause 1, Article 16 of the Procedures on the Handling of JSPS Grants-in-Aid for Scientific Research (KAKENHI (Multi-year Fund)), by the time instructed by the Minister of Education, Culture, Sports, Science and Technology or JSPS.
3. When persons about whom it has been decided not to notify the amount planned to be provided in accordance with the provisions of the previous Clause submit the report on the research achievements by the time instructed by JSPS of the Minister of Education, Culture, Sports, Science and Technology, JSPS will notify the amount planned to be provided afterwards, based on the provisions of Article 8.

(Investigation on accounting)

Article 17 When deemed necessary, JSPS may investigate or issue directives concerning the grant recipient's accounting or demand that a recipient reports on its accounting.

(Investigation on the state of the research and other matters)

Article 18 When deemed necessary, JSPS may demand that a grant recipient files a report on the status of its scientific research etc. and may also conduct an on-site investigation.

(Publication of progress of research)

Article 19 In printing or publication by other means, JSPS may publish all or part of descriptions in the report of results of scientific research and the report mentioned in the previous article that concern the progress of research.

(Publication of progress of research and research achievements)

Article 20 JSPS may publish all or part of the portion related to the progress of the research in the report on the results of the scientific research or the report mentioned in the previous Article, in print or other means.

2. JSPS may publish all or part of the report on the research achievements, in print or other means.

(Donation of equipment and suchlike)

Article 21 If the recipient of a grant mentioned in (1) a) of Article 6 partly appropriated the grant to the purchase of equipment etc., the recipient should promptly donate the equipment etc. to one or more of the research institutions that the recipient belongs to.

2. If the recipient of a grant mentioned in (1) b) of Article 6 partly appropriated the grant to the purchase of equipment etc. worth 50,000 yen or more, the recipient should donate the equipment etc. to a school or other educational or research institution no later than the termination of the research period.
3. If the recipient of a grant specified in (1) c) or d) in Article 6, Clause 1 partly appropriated the grant to the purchase of equipment etc. the recipient should promptly donate the equipment etc. to the research institution where he/she engages in research or to which he/she belongs.
4. Where it is deemed inconvenient for a grant recipient to promptly donate the purchased equipment etc. to the research institution, the equipment etc. may not be donated until the time the abovementioned donation is no longer likely to create such inconvenience, provided that JSPS's approval is obtained, notwithstanding the provisions in Clause 1.
5. Notwithstanding Clause 3, a special researcher may keep the purchased equipment etc. until when he/she is no longer qualified as a special researcher.

(Other)

Article 22 In addition to those specified in the Application Procedures, the rules necessary for the handling of grants should be provided elsewhere in the application guidelines and suchlike.

Additional Rules

The rules will be enforced on October 7, 2003 and take effect on October 1, 2003.

The provisions in Article 4-2 do not apply to a funded project that is going to be implemented by a researcher who, before September 12, 2003, was ordered to refund Grants-in-Aid for Scientific Research to his/her project subject to grant cancellation in accordance with Clause 1, Article 18 of the Law.

The JSPS's handling of Grants-in-Aid for Scientific Research before the day the Handling

Procedures take effect in compliance with JSPS Grants-in-Aid for Scientific Research (Scientific Research) Handling Procedures (Rule No. 6, June 9, 1999) is deemed as JSPS's handling of a grant in accordance with the relevant provisions in the Handling Procedures.

Additional Rule (No. 9, 2004)

1. Takes effect on April 1, 2004
2. Provisions in No. 3 of Clause 1, Article 4-2 do not apply to researchers who conducted a project subject to grant cancellation for which the grant was decided before the time the Rules take effect.

Additional Rule (No. 14, 2004)

Takes effect on August 27, 2004

Additional Rule (No. 1, 2005)

1. Takes effect on January 24, 2005
2. Clauses 2 and 3 of Article 4-2 do not apply to projects conducted by a researcher who was ordered to refund Grants-in-Aid for Scientific Research before the day the Rules take effect, or who conspired with such a researcher.

Additional Rule (No. 7, 2005)

Takes effect on April 1, 2005

Additional Rule (No. 9, 2006)

Takes effect on April 1, 2006

Additional Rule (No. 12, 2007)

Takes effect on April 1, 2007

Additional Rule (No. 9, 2008)

1. This rule was set up from June 10, 2008, and takes effect for the grants of FY2008 and later.
2. The rules No. 1 and No. 3 of clause 1, article 5 of the revised Handling Procedures (hereinafter "New Procedures") do not apply to persons who conducted illicit use in projects of which the decision to fund a grant was cancelled, or to project members who used a grant-in-aid for scientific research in a way that violates the rules under clause 1, article 11 of the Law, in projects of which the day when the return of the grant-in-aid for scientific research was ordered fell before September 12, 2003. This is in accordance with the rules of clause 1 of article 18 of

the Law. (This does not apply to the persons mentioned in No. 1 or No. 2, clause 1, article 5 of the New Procedures.)

3. The rule No. 4, clause 1, article 5 of the New Procedures does not apply to the Principal Investigator or the Co-Investigator(s) (*kenkyū-buntansha*) of projects of which the decision on funding of the grant was taken before April 1, 2004.
4. The rules No. 2 and No. 5, clause 1, article 5 of the New Procedures do not apply to persons who conspired in illicit use of grants-in-aid for scientific research, to persons who obtained a grant-in-aid for scientific research by deceit or by other illicit means, or to persons who conspired in this deceit or other illicit means in question, in projects of which the day when the return of the grant-in-aid for scientific research was ordered fell before January 24, 2005.

Additional Rule (No. 6, 2010)
Takes effect on April 1, 2010.

Additional Rule (No. 21, 2010)
Takes effect on September 7, 2010.

Additional Rule (No. 18, 2011)
Takes effect on April 1, 2011.

Additional Rule (No. 20, 2011)
Takes effect on April 28, 2011.

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

(General rules)

Article 1 The handling of Grants-in-Aid for Scientific Research (KAKENHI (Multi-year Fund), hereinafter "grants") provided by the Japan Society for the Promotion of Science (hereinafter "JSPS") should comply with the Japan Society for the Promotion of Science Act (No. 159, 2002, hereinafter "JSPS Act"), the Law Concerning the Optimization of Budgets for Subsidiaries (hereinafter "the Law"), which will be applied *mutatis mutandis* pursuant to Clause 2, Article 17 of the JSPS Act, the Ordinance for the Enactment of the Law Concerning the Optimization of Budgets for Subsidiaries (No. 255, 1955), the Basic Policy on the Management of the KAKENHI (Multi-year Fund) (decision by the Minister of Education, Culture, Sports, Science and Technology made on April 28, 2011), and these Procedures on the Handling of JSPS Grants-in-Aid for Scientific Research (KAKENHI (Multi-year Fund)) (hereinafter "Handling Procedures").

(Objectives)

Article 2 The aim of these Handling Procedures is to specify the details concerning the handling of the eligibility for funding, application, funding and other matters for grants provided by JSPS to researchers, based on the provisions of point 6, Article 7 of the Requirements for Grants-in-Aid for Scientific Research (KAKENHI Multi-year Fund) (decision by the Minister of Education, Culture, Sports, Science and Technology made on April 28, 2011), so that the grant can be appropriately and efficiently implemented.

(Definitions)

Article 3 In these Handling Procedures, a "research institution" refers to an institution as stipulated in Clause 1, Article 2 of the Handling Rules on Grants-in-Aid for Scientific Research (Announcement of the Ministry of Education, 1965, No. 110; hereinafter "Handling Rules") and to an institution in accordance with Clause 8 of the same Article. A research institution is an institution in which academic research is conducted and which falls under any of the definitions mentioned under points 1 to 4 and under point 5.

(1) Universities or inter-university research institutions (including corporations that run such organizations and are designated by the Minister of Education, Culture, Sports, Science and Technology)

(2) MEXT's facilities and other organizations engaged in scientific research

(3) Technical colleges

(4) Research laboratories and other institutions established by the national or local government, corporations established under a special law, laboratories and other institutions established by such corporations, or general incorporated associations or general incorporated foundations that are designated by the Minister of Education, Culture, Sports, Science and Technology for scientific research

(5) Among the institutions to which belong persons who conduct research and who contribute to the promotion of science, research laboratories and other institutions, or companies and other legal persons (hereinafter in this clause called "companies") mainly engaging in research that are founded by companies established according to the laws and ordinances of Japan, if they are designated by the Minister of Education, Culture, Sports, Science and Technology. (This does not apply to institutions mentioned under point 1 and the previous point 2.)

2. In these Handling Procedures, the "Principal Investigator" is the researcher who bears the responsibility for the implementation of the project as a member of the project in question that is the object of funding of a grant (hereinafter "member of the funded project"), as stipulated in the provisions of Clause 3, Article 2 of the Law.
3. In these Handling Procedures, a "Co-Investigator (*kenkyū-buntansha*)" is a researcher who conducts a project in cooperation with the Principal Investigator as a member of the project in question that is the object of funding of a grant and in which two or more researchers jointly conduct one and the same research project.
4. In these Handling Procedures, a "Co-Investigator (*renkei-kenkyūsha*)" is a researcher who participates in research for a project that is the object of funding of a grant, in cooperation with the Principal Investigator or the Co-Investigator(s) (*kenkyū-buntansha*), and under the supervision of the Principal Investigator or the Co-Investigator(s) (*kenkyū-buntansha*).
5. In these Handling Procedures, a "Research Collaborator" is a person other than the Principal Investigator, the Co-Investigator(s) (*kenkyū-buntansha*) or the Co-Investigator(s) (*renkei-kenkyūsha*), who collaborates in research that is a project that is the object of funding of a grant.
6. In these Handling Procedures, "fraudulent use" is use of the grant for other purposes, intentionally or by gross negligence, or use that violates the substantive content of the decision to fund the grant, or any condition it implies.
7. In these Handling Procedures, "fraudulent acts" are forgery, manipulation or plagiarism of data, information, survey results, etc. that appear in published research results within a project that is the object of funding of a grant.

(Object of funding with grants)

Article 4 Projects that are object of funding with grants are projects that are academically important basic research activities (including applied research that is in an elementary stage) and that are conducted in a research institution by a researcher individually or by two or more researchers as a team on the same research project. The researcher(s) 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 and should actually be engaged in research activities at the research institution in question. (This is limited to projects that are conducted as an activity of the research institution to which the researcher(s) belong and where the management of the grants is carried out in the research institution.)

2. The costs that are the object of funding are the costs necessary for the project that is object to funding of grants (hereinafter "funded project") and deemed by JSPS as deserving funding.

3. The period of the funded project is the period decided by JSPS. However, persons who obtained funding of the grant can extend the period of the funded project by one year, provided they obtain the approval of JSPS. Moreover, if researchers obtain maternity leave or childcare leave, they can extend the period by more than one year, depending on the period during which the funded project is discontinued, provided they obtain the approval of JSPS.

(Projects for which no grants will be provided)

Article 5 Notwithstanding the provisions of Clause 1 of the previous Article, no grant will be provided for a period stipulated in each of the following numbered points for projects that are conducted by persons who are mentioned in the following numbered points. However, this does not apply to projects other than projects of which the decision to provide the funding of grants has been cancelled (hereinafter "project subject to grant cancellation"), according to the provisions of Clause 1, Article 17 of the Law, for which persons mentioned in number 4 receive funding.

(1) A person who made fraudulent use of a grant in a project subject to grant cancellation:
from 2 to 5 years starting from the next fiscal year following the fiscal year in which that person has been ordered to refund the grant related to a project subject to grant cancellation, in accordance with the provisions of Clause 1, Article 18 of the Law. The exact length of the period deemed appropriate (between 2 and 5 years) will be decided, taking into consideration the content of the fraudulent use in question and other relevant factors.

(2) A person who conspired with a person as mentioned in the previous point in fraudulent

use of a grant:

the same period as the period during which no grant will be funded for the project conducted by the person mentioned in the same point, in accordance with the provisions in the previous point.

(3) A member of a funded project subject to grant cancellation who used a grant in violation of the provisions of Clause 1, Article 11 of the Law:

2 years starting from the next fiscal year following the fiscal year in which that member has been ordered to refund the grant related to a project subject to grant cancellation, in accordance with the provisions of Clause 1, Article 18 of the Law. (This does not apply to persons mentioned in the previous point 2.)

(4) A Principal Investigator or a Co-Investigator (*kenkyū-buntansha*) who conducted a project subject to grant cancellation in cooperation with a Principal Investigator or a Co-Investigator (*kenkyū-buntansha*) who falls under point 1 or 3 (except persons mentioned under the previous points; the same applies to the points below), or a Principal Investigator or a Co-Investigator (*kenkyū-buntansha*) of a project subject to grant cancellation in which a Co-Investigator (*renkei-kenkyūsha*) who falls under point 1 participated, or a Principal Investigator or a Co-Investigator (*kenkyū-buntansha*) of a project subject to grant cancellation in which a Research Collaborator who falls under the same point 1 cooperated:

1 year following the fiscal year in which he/she has been ordered to refund the grant related to a project subject to grant cancellation, in accordance with the provisions of Clause 1, Article 18 of the Law.

(5) A person who obtained funding of a grant by deceit or other fraudulent means, or a person who conspired in the use of a grant by this deceit or other fraudulent means in question:

5 years starting from the next fiscal year following the fiscal year in which that person has been ordered to refund the grant in question.

(6) A person of whom it has been established that he/she committed fraudulent acts (including cases where it has been established that the person bears responsibility for the content of a research paper that is connected to the research results of which it has been established that the fraudulent acts in question have been committed; the same applies to the Articles below):

from 1 to 10 years starting from the next fiscal year following the fiscal year in which it has been established that the fraudulent acts in question have been committed. The exact length of the period deemed appropriate (between 1 and 10 years) will be decided, taking into consideration the content of the fraudulent acts in question and other relevant factors.

2. Notwithstanding the provisions of Clause 1 of the previous Article, no grant will be funded for projects that are conducted by persons of whom it has been decided that no KAKENHI

(Series of Single-year Grants) will be funded for a certain period during the corresponding period, in accordance with the provisions of Clause 1, Article 4 of the Handling Rules or Clause 1, Article 5 of the Procedures on the Handling of JSPS Grants-in-Aid for Scientific Research (KAKENHI (Series of Single-year Grants)) (hereinafter "Single-year Grant Handling Procedures"). However, this does not apply to projects for which persons of whom it has been decided that no KAKENHI (Series of Single-year Grants) will be funded, in accordance with the provisions of point 4, Clause 1, Article 4 of the Handling Rules or point 4, Clause 1, Article 5 of the Single-year Grant Handling Procedures, have already obtained funding.

3. Notwithstanding the provisions of Clause 1 of the previous Article, no grant will be funded for a period stipulated in Article 2 of the Decision on Particular Benefits and Other Matters of Clause 3, Article 4 of the Procedures on the Handling of Grants-in-Aid for Scientific Research (decided by the Minister of Education, Culture, Sports, Science and Technology on August 24, 2004; hereinafter "Decision by the Minister of Education"), for projects conducted by persons mentioned in each of the following numbered points, of whom it has been decided not to provide them with a particular benefit for a certain period, as stipulated in Article 1 of the Decision by the Minister of Education.

(1) Persons who used the particular benefit for other purposes than the one it is intended for, or a person who conspired in the use for other purposes

(2) For a project that is the object of funding of a particular benefit, persons who violated the substantive content of the decision to fund them the particular benefit, any condition connected to the funding, and other laws and ordinances, or the punishment based on these laws and ordinances imposed by the head of a national institution or independent administrative legal entity

(3) Persons who obtained funding of a particular benefit by deceit or other fraudulent means, or persons who conspired in this deceit or other fraudulent means

(4) Persons of whom it has been established that they committed fraudulent acts in a project funded with a particular benefit

(Applicants for a Grant)

Article 6 Persons who can apply for funding of a grant mentioned in Clause 1, Article 4 are representatives of researchers who conduct the funded project.

(Proposal for grant-in-aid)

Article 7 Persons who wish to apply for funding of a grant need to submit a proposal for grant-in-aid for the project to JSPS in advance, using the form specified.

2. The deadline for the submission of the proposal for grant-in-aid mentioned in the previous Clause is announced by JSPS every year.

(Notification of the amount planned to be provided)

Article 8 Based on the proposal for grant-in-aid mentioned in Clause 1 of the previous Article, JSPS decides to whom to provide a grant and the amount it plans to provide (hereinafter "amount planned to be provided") and notifies the amount planned to be provided to the recipient in advance.

(Allocation of the screening and other matters)

Article 9 When making decisions to whom to provide a grant and the amount planned to be provided in accordance with the previous Article, JSPS should consult the Grants-in-Aid for Scientific Research Committee to discuss issues concerning the allocation of grants and other matters.

2. The rules on the organization and operation of the Committee mentioned in the previous Clause are stated elsewhere.

(Grant application form)

Article 10 When applying for funding of a grant, applicants who received the notification mentioned in Article 8 should fill in and submit the grant application form to JSPS by the deadline specified by JSPS, using the form specified.

(Decisions concerning grants)

Article 11 Upon receiving an application for funding of a grant in accordance with the previous Article, JSPS will screen the documents concerning the application and conduct field surveys or suchlike as the need arises, to make sure that the project deserves the grant and the calculation of the amount of the grant is not erroneous.

2. If JSPS considers that a grant should be provided, as a result of the investigation mentioned in the previous Clause, it will make a prompt decision.

3. JSPS stipulates the following requirements for providing a grant.

(1) When researchers who obtained funding of a grant wish to change the details and cost allocation of the funded project, they should obtain the prior approval from JSPS.
However, this does not apply to minor changes that are decided by JSPS in consultation with the Minister of Education, Culture, Sports, Science and Technology without compromising the objective of the funded project.

(2) If researchers who obtain funding of a grant cancel or discontinue the funded project,

they should obtain approval from JSPS.

(3) If researchers who obtain funding of a grant cannot complete a funded project within the scheduled period, or if the implementation of a funded project seems too difficult, they should promptly report this to JSPS and follow any instructions that may be provided.

(4) If researchers who obtain funding of a grant conclude a contract in order to implement a funded project and make the relevant payments, they should, in compliance with the national contract and the intent of the provisions concerning payment, endeavor to maintain a high level of efficiency in the use of costs, so that equitable and minimum costs result in maximum benefit.

4. After making a decision concerning the funding of a grant, JSPS will promptly notify the details of the decision and the conditions it implies to the person who applied for the grant.

(Withdrawal of application)

Article 12 If researchers who applied for funding of a grant are dissatisfied with the details of the decision on the funding of the grant mentioned in the notification or any condition implied in this decision, upon receiving this notification in accordance with the provisions of Clause 4 of the previous Article, they may withdraw the application by a date to be decided by JSPS.

2. If the application is withdrawn, in accordance with the provisions of the previous Clause, it is considered that no decision on the funding of the grant related to that application in question has been made.

(Limitations on the use of a grant)

Article 13 Researchers who obtain funding of a grant should restrict the use of the grant to the costs necessary for the funded project.

(Report on the state of implementation)

Article 14 Researchers who obtain funding of a grant should submit a report on the state of implementation which clarifies the state of the implementation of the funded project and the state of the accounting to JSPS within 2 months following the end of each fiscal year, except for the final fiscal year, using the form specified.

2. Through screening of the submitted report on the state of implementation and an investigation conducted as the need arises, JSPS verifies whether the implementation of the research corresponds with the content of the decision on the funding of the grant and any conditions it implies.

(Report on results)

Article 15 Upon completion of the funded project, researchers who obtained funding of a grant should promptly complete and submit a report on results to JSPS, using the form specified.

(Final decision concerning the amount of the grant)

Article 16 After receiving the report on results submitted in accordance with the provisions of the previous Article, JSPS screens this report on results and conducts an investigation, as the need arises. If JSPS has verified that the result of the funded project corresponds with the contents of the decision concerning the funding of the grant and the conditions it implies, JSPS makes a final decision on the amount of the grant that should be provided and notifies this to the relevant recipient. In this case, JSPS may implement aforementioned, after verification of the portion that has been implemented in the relevant fiscal year, except for the final fiscal year of the funded project, based on the content verified in accordance with Clause 2, Article 14.

(Report on research achievements)

Article 17 Researchers who obtained funding of a grant should submit a report on the achievements of the implemented project based on the plan in the proposal for grant-in-aid mentioned in Clause 1, Article 7 (hereinafter “report on the research achievements”) to JSPS by the date decided by JSPS, accordance with the requirements decided by JSPS.

2. If persons who did not submit the report on the research achievements by the time prescribed by JSPS in the previous Clause do not submit the report on the research achievements without particular reason by the time separately and additionally instructed by JSPS, JSPS will, notwithstanding the provisions of Article 8, not notify these persons of the amount planned to be provided. Moreover, if the decision to provide the grant has already been made, the payment of the grant will be retained. This also applies to persons who do not submit the report on the research achievements for grants mentioned in Clause 1, Article 13 of the Handling Rules or Clause 1, Article 16 of the Procedures on the Handling of grants, by the time instructed by the Minister of Education, Culture, Sports, Science and Technology or JSPS.
3. When persons of whom it has been decided not to notify the amount planned to be provided to them, in accordance to the provisions of the previous Clause, afterwards submit the report on the research achievements by the time instructed separately by JSPS or the Minister of Education, Culture, Sports, Science and Technology, JSPS should notify the amount planned to be provided to them, based on the provisions of Article 8. Moreover,

when persons, of whom the payment of the grant has been retained, in accordance with the provisions of the previous Clause, afterwards submit the report on the research achievements by the time instructed separately by JSPS or the Minister of Education, Culture, Sports, Science and Technology, JSPS may revoke the retention of the payment.

(Accounting records and other documents)

Article 18 Researchers who obtained funding of a grant should retain the accounting records on the balance of the grant, sort out receipts and other related documents, and store them for five years after the completion of the project for which the grant has been provided.

(Investigation on accounting)

Article 19 When deemed necessary, JSPS may investigate or provide guidance on the accounting of the grant of researchers who obtained funding, or demand that they report on the accounting.

(Investigation on the state of the funded project)

Article 20 When deemed necessary, JSPS may require that researchers who obtained funding of a grant submit a report on the state of the funded project, and may also conduct an on-site investigation.

(Publication of progress of research and research achievements)

Article 21 Among the reports related to the funded project, JSPS may publish all or part of the portion related to the progress of the research in the report on the state of implementation, the report on results and the report mentioned in the previous Article, in print or other means.

2. JSPS may publish all or part of the report on the research achievements, in print or other means.

(Donation of equipment and suchlike)

Article 22 If persons who obtained funding of a grant mentioned in Article 6 purchased equipment, implements or books (hereinafter “equipment”) with the grant, they should promptly select one or more appropriate research institutions from among the research institutions to which they belong, and donate the equipment.

2. Where it is deemed inconvenient for the research of the persons who obtained funding of a grant to promptly donate the purchased equipment, the equipment may not be donated until the necessity for the research disappears, provided that the approval of JSPS is

obtained, notwithstanding the provisions in the previous Clause.

(Other)

Article 23　In addition to the rules specified in these Handling Procedures, the rules necessary for the handling of grants should be provided elsewhere in the Application Guidelines and suchlike.

Additional Rule (No. 19, 2011)

This rule takes effect from April 28, 2011.

(Reference 5) State of Allocation of Grants-in-Aid for Scientific Research for FY2011 and Other Matters

1. State of Allocation of Grants-in-Aid for Scientific Research for FY2011

(1) New Projects

As of April 2011

Research category	Number of proposed projects			Amount allocated	Amount allocated per project	
	Applications	Applications approved	Approval rate		Average	Maximum
	#	#	%	(1,000 yen)	(1,000 yen)	(1,000 yen)
Grants-in-aid for Scientific Research	〔 86,714 〕 89,800	〔 19,168 〕 25,759	〔 22.1 〕 28.7	〔 46,186,270 〕 62,176,350 【 18,476,025 】	〔 2,410 〕 2,414	〔 33,200 〕 32,900
Specially promoted Research	〔 1,063 〕 177	〔 279 〕 80	〔 26.2 〕 45.2	〔 778,600 〕 239,600	〔 2,791 〕 2,995	〔 10,000 〕 3,300
Scientific Research on Priority Areas(*1)	〔 1,365 〕 4,072	〔 346 〕 1,147	〔 25.3 〕 28.2	〔 1,169,200 〕 3,683,150 【 1,104,945 】	〔 3,379 〕 3,211	〔 9,000 〕 9,000
Scientific Research(A)	〔 2,296 〕 2,180	〔 536 〕 565	〔 23.3 〕 25.9	〔 7,110,100 〕 7,478,000 【 2,243,400 】	〔 13,265 〕 13,235	〔 33,200 〕 32,900
Scientific Research(B)	〔 9,714 〕 10,127	〔 2,489 〕 2,592	〔 25.6 〕 25.6	〔 13,585,300 〕 14,688,900 【 4,406,670 】	〔 5,458 〕 5,667	〔 14,200 〕 14,300
Scientific Research(C)(*2)	〔 31,443 〕 32,177	〔 7,471 〕 9,620	〔 23.8 〕 29.9	〔 10,361,600 〕 15,564,500 【 4,669,350 】	〔 1,387 〕 1,618	〔 3,500 〕 4,200
challenging Exploratory Research(*2)	〔 12,505 〕 12,734	〔 1,412 〕 3,809	〔 11.3 〕 29.9	〔 2,250,900 〕 5,916,100 【 1,774,830 】	〔 1,594 〕 1,553	〔 3,300 〕 3,400
Young Scientists(A)	〔 1,941 〕 1,907	〔 343 〕 459	〔 17.7 〕 24.1	〔 2,530,600 〕 3,859,300 【 1,157,790 】	〔 7,378 〕 8,408	〔 18,900 〕 21,700
Young Scientists(B)(*2)	〔 22,817 〕 22,688	〔 5,578 〕 6,787	〔 24.4 〕 29.9	〔 8,050,500 〕 10,396,800 【 3,119,040 】	〔 1,443 〕 1,532	〔 3,600 〕 3,400
Encouragement of Scientists	〔 3,570 〕 3,738	〔 714 〕 700	〔 20.0 〕 18.7	〔 349,470 〕 350,000	〔 489 〕 500	〔 800 〕 900
Publication of Scientific Research Results	〔 1,155 〕 1,045	〔 515 〕 521	〔 44.6 〕 49.9	〔 1,250,300 〕 1,139,090	〔 2,428 〕 2,186	〔 27,100 〕 26,900
Total	〔 87,869 〕 90,845	〔 19,683 〕 26,280	〔 22.4 〕 28.9	〔 47,436,570 〕 63,315,440 【 18,476,025 】	〔 2,410 〕 2,409	〔 33,200 〕 32,900

Notes:
1. The figures in 〔 〕 indicate the previous fiscal year.
2. The figures in【 】indicate indirect costs (excluded from the total).
3. For items marked with an asterisk (*1), only new projects of continued area have been accounted for.
4. For items marked with an asterisk (*2), are funded with KAKENHI (Multi-year Fund) when adopted as new research projects from FY2011 on.
5. "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 2011

Research category	Number of proposed projects			Amount allocated	Amount allocated per project	
	Applications	Applications	Approval rate		Average	Maximum
	#	#	%	(1,000 yen)	(1,000 yen)	(1,000 yen)
Grants-in-aid for Scientific Research	〔 123,696 〕 127,403	〔 56,045 〕 63,310	〔 45.3 〕 49.7	〔 131,424,243 〕 149,213,117 【 43,696,954 】	〔 2,345 〕 2,357	〔 274,700 〕 213,000
Specially promoted Research(*1)	〔 65 〕 64	〔 65 〕 64	〔 - 〕 -	〔 4,926,700 〕 4,891,900 【 1,467,570 】	〔 75,795 〕 76,436	〔 274,700 〕 213,000
Scientific Research on Priority Areas	〔 1,848 〕 599	〔 1,064 〕 501	〔 57.6 〕 83.6	〔 7,436,800 〕 3,206,600	〔 6,989 〕 6,400	〔 112,100 〕 45,000
Scientific Research on Innovative Areas(*2) (Research in a proposed research area)	〔 2,125 〕 5,116	〔 1,106 〕 2,191	〔 52.0 〕 42.8	〔 8,785,900 〕 17,285,350 【 5,185,605 】	〔 7,944 〕 7,889	〔 209,100 〕 122,400
Scientific Research on Innovative Areas(*1) (Research a proposed research project)	〔 160 〕 78	〔 160 〕 78	〔 - 〕 -	〔 1,179,000 〕 540,900 【 162,270 】	〔 7,369 〕 6,935	〔 10,000 〕 7,900
Scientific Research(S)(*1)	〔 332 〕 337	〔 328 〕 335	〔 - 〕 -	〔 7,197,000 〕 8,243,100 【 2,472,930 】	〔 21,942 〕 24,606	〔 74,400 〕 83,600
Scientific Research(A)	〔 3,655 〕 3,562	〔 1,878 〕 1,940	〔 51.4 〕 54.5	〔 17,582,800 〕 18,059,800 【 5,417,940 】	〔 9,363 〕 9,309	〔 33,200 〕 326,900
Scientific Research(B)	〔 15,492 〕 15,983	〔 8,236 〕 8,421	〔 53.2 〕 52.7	〔 32,402,200 〕 33,172,735 【 9,951,820 】	〔 3,934 〕 3,939	〔 14,200 〕 14,300
Scientific Research(C)(*3)	〔 47,141 〕 48,621	〔 23,142 〕 26,062	〔 49.1 〕 53.6	〔 23,686,812 〕 29,056,997 【 8,717,099 】	〔 1,024 〕 1,115	〔 3,500 〕 4,200
challenging Exploratory Research(*3)	〔 14,358 〕 14,576	〔 3,265 〕 5,651	〔 22.7 〕 38.8	〔 4,203,770 〕 7,665,964 【 2,299,789 】	〔 1,288 〕 1,357	〔 3,300 〕 3,400
Young Scientists(S)(*1)	〔 108 〕 108	〔 108 〕 107	〔 - 〕 -	〔 1,527,700 〕 1,352,100 【 405,630 】	〔 14,145 〕 12,636	〔 27,200 〕 22,800
Young Scientists(A)	〔 2,540 〕 2,617	〔 938 〕 1,165	〔 36.9 〕 44.5	〔 5,075,900 〕 6,626,303 【 1,987,891 】	〔 5,411 〕 5,688	〔 18,900 〕 21,700
Young Scientists(B)(*3)	〔 31,281 〕 31,183	〔 14,020 〕 15,274	〔 44.8 〕 49.0	〔 16,170,953 〕 17,922,189 【 5,376,657 】	〔 1,153 〕 1,173	〔 3,600 〕 3,400
Research Activity Start-up(*1)	〔 1,021 〕 821	〔 1,021 〕 821	〔 - 〕 -	〔 899,238 〕 839,179 【 251,754 】	〔 881 〕 1,022	〔 1,500 〕 1,500
Encouragement of Scientists	〔 3,570 〕 3,738	〔 714 〕 700	〔 20.0 〕 18.7	〔 349,470 〕 350,000	〔 489 〕 500	〔 800 〕 900
Publication of Scientific Research Results	〔 1,180 〕 1,084	〔 540 〕 560	〔 45.8 〕 51.7	〔 1,368,000 〕 1,280,990	〔 2,533 〕 2,287	〔 27,100 〕 26,900
Creative Scientific Research*1	〔 39 〕 18	〔 39 〕 18	〔 - 〕 -	〔 2,537,200 〕 1,208,300 【 362,490 】	〔 65,056 〕 67,128	〔 99,700 〕 89,500
Total	〔 124,915 〕 128,505	〔 56,624 〕 63,888	〔 45.3 〕 49.7	〔 135,329,443 〕 151,702,407 【 44,059,444 】	〔 2,390 〕 2,375	〔 274,700 〕 213,000

Notes:

1.This chart combines the figures for newly selected and continuing projects.

2. The figures in 〔 〕indicate the previous fiscal year

3. The figures in【 】indicate indirect costs (excluded from the total)

4. In case of items marked with an asterisk (*1), only continued projects have been accounted for.

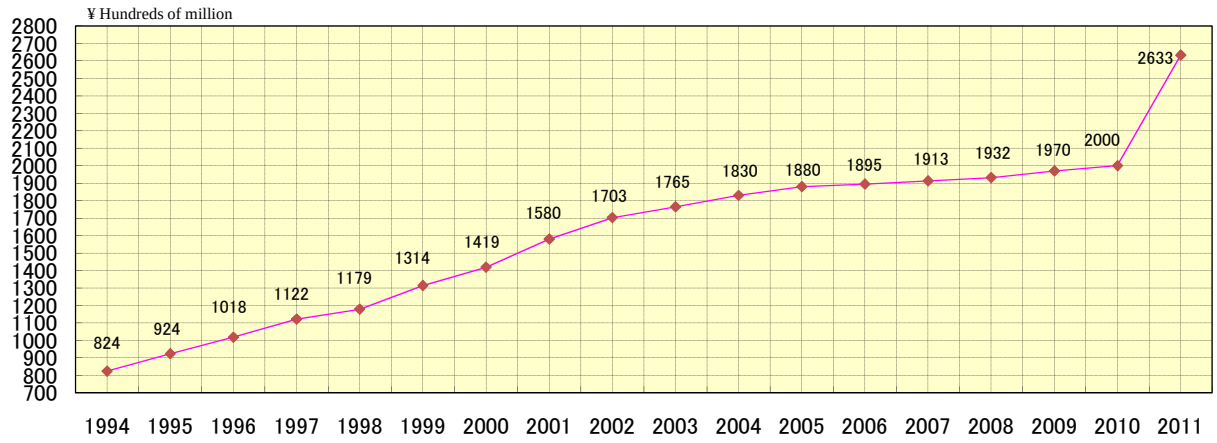
5. In case of items marked with an asterisk (*2), only new Projects and continued projects of continued area have been accounted for.

6 For items marked with an asterisk (*3), are funded with KAKENHI (Multi-year Fund) when adopted as new research projects from FY2011 on.

7. "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.

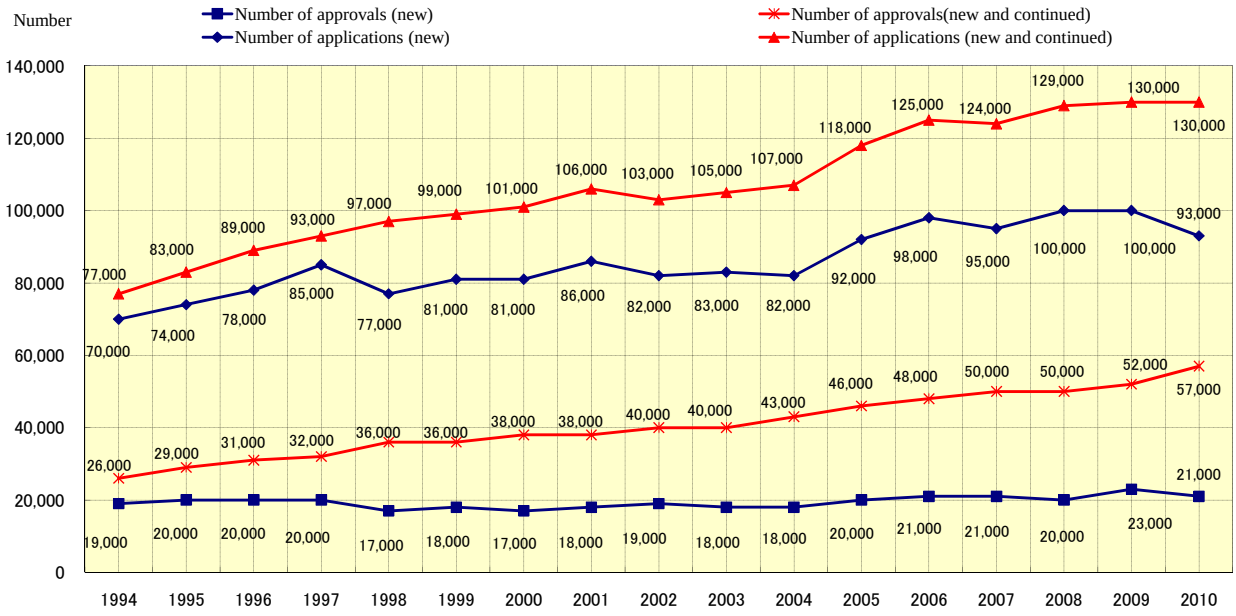
2. Changes in budgets and other information

○ 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
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	(853) 2,633
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

○ State of applications and approvals



○ State of applications

FY	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
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
Fullfilling 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

Inquiries

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

(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, 4632(Scientific Research (S))
03-3263-1431,4326,4617 (Grant-in-Aid for Young Scientists (S))

KAKENHI (Series of Single-year Grants): S**cientific research (A, B), Grant-in-Aid for Young Scientists (A)** all research projects, **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: 03-3263-4779,4758,0996,4724

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: 03-3263-1057,1843,0992

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

Call center: 0120-556739 (toll-free)

* Available from 9:30 to 17:30 every day except Saturdays, Sundays and holidays

The following phone numbers are also available: 03-3263-1902 and 03-3263-1913

System Management Team, Policy Planning, Information and Systems Division, General Affairs Division, 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 9:30 to 17:30

* The following phone numbers are also available: 03-5638-5361

(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

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