

## Handbook on the Grants-in-Aid for Scientific Research (KAKENHI) Program

How to Make More Effective Use of the Program

(For Researchers)

FY2018 Edition



— In 2018, the KAKENHI marks the 100<sup>th</sup> anniversary of its foundation — June 2018

Research Promotion Bureau, Ministry of Education, Culture, Sports, Science and Technology (MEXT)

Japan Society for the Promotion of Science (JSPS)

## Foreword

This Handbook is intended mainly for researchers who are conducting research with financial assistance from the Grants-in-Aid for Scientific Research (KAKENHI) program or intend to apply for a research grant under the program. The basics of the program are outlined here in an accessible format.

Be sure to read through this Handbook in order to further your understanding of the program and to make more effective use of the funds provided under the framework of this program.

KAKENHI are funded by the tax of citizens and other public sources. Those conducting research under this program are expected to observe the rules established by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) and the Japan Society for the Promotion of Science (JSPS), as well as rules prescribed by each research institution, and to make proper and efficient use of the funds.

### Contents

## [Preface]

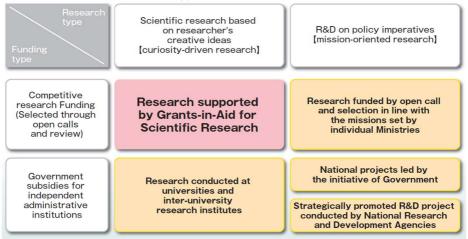
1. What Is the Grants-in-Aid for Scientific Research
(KAKENHI) Program? 1
2. What Are the KAKENHI rules? 5
3. What Is the Review Process?7
[When applying]
4. What Is Eligibility for KAKENHI Application? 8
5. What Issues Need to Be Considered When
Applying?10
6. How Are Applications Reviewed?12
[When conducting research with KAKENHI]
7. When Do the Research Grants Become Available
for Use?14
8. What Is Management by Institutions? 16
9. What Dose Direct Expense Cover? 17
10. What Are Indirect Expense? 20
11. Can a Research Plan Be Modified? 21
12. Using "Series of Single-year Grants"? 24
13. Using "the Multi-year Fund"? 25

14. What Assessment Is Performed During and Afte	er
the Research Period?	27
15. How Are the Research Results and	
Achievements Disseminated?	28
16. What Happens If the Rules Are Not Followed? 3	34
17. What is the Code of Conduct for Scientists to	
Adhere?	36
[KAKENHI Reform]	
18. On FY2018 KAKENHI Reform	40

## 1. What Is the Grants-in-Aid for Scientific Research (KAKENHI) Program?

The KAKENHI program is the only competitive funding program aimed at all scientific research (i.e. research based on the free ideas of researchers in universities and other research institutions), from basic to applied research in all fields, covering the humanities, the social sciences and the natural sciences.

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



Research activities take many forms, including those in which the researchers carry out their work with curiosity, projects in which the area of concentration and goals are defined in advance, and those intended to lead to specific product development. The starting point for these activities is scientific research based on the researcher's creative ideas. By broadly supporting this scientific research, which is the foundation of all research activities, the KAKENHI program plays a major role, in the fostering and development of scientific advances.

## Various research categories have been established based on the content and the scale of the research.

#### As of April, 2018

Research	Purposes and description of each research category
categories	
Grants-in-Aid for Scientific Research Grant-in-Aid for	Outstanding and distinctive research conducted by one or a relatively small number of
Specially Promoted Research	researchers expected to achieve remarkably excellent research results that open up a new scientific field. (The research period is 3 to 5 years (in a truly necessary case, period up to 7 years is acceptable.). The budget ranges from 200 million to 500 million yen per project (only in a truly necessary case, budget exceeding 500 million yen is asked for.).
Grant-in-Aid for Scientific Research on Innovative Areas	(Research in a proposed research area) This category is intended to foster novel research areas proposed by diverse groups of researchers that are expected to lead to development and heightening of Japan's research level in the respective fields, to be conducted by collective research efforts through collaboration, scholarly training, shared use of equipment, etc. (The period is 5 years. The budget range is generally set between 10 million to 300 million yen per fiscal year per proposed area.)
Grant-in-Aid for Scientific Research	<ul> <li>(S): Creative/pioneering research conducted by one or a relatively small number of researchers. (The period is 5 years. The budget ranges from 50 to 200 million yen per project.)</li> <li>(A), (B), (C): Creative/pioneering research conducted by one researcher or jointly by multiple researchers. (The period is 3 to 5 years.)</li> <li>(A) 3 to 5 years 20 million to 50 million yen</li> <li>(B) 3 to 5 years 5 million to 20 million yen</li> <li>(C) 3 to 5 years 5 million yen or less</li> <li>*Classification of (A)/(B)/(C) is according to the budget range.</li> </ul>
Grant-in-Aid for Challenging Exploratory Research	[No new proposals are called for FY2018.] Early-stage research conducted by one or multiple researchers which, based on a unique idea, sets a high and challenging goal. (The period is 1 to 3 years. The budget is up to 5 million yen per project.)
Grant-in-Aid for Challenging Research (Pioneering/Explo ratory)	<ul> <li>(Pioneering) (Exploratory)</li> <li>Research conducted by a single or multiple researchers that aims at radically transforming the existing research framework and/or changing the research direction and has a potential of rapid development. The scope of the (Exploratory) category encompasses research proposals that are highly exploratory and/or are in their budding stages. The research period and total budget range are as follows;</li> <li>(Pioneering) 3 to 6 years 5 million to 20 million yen (Exploratory) 2 to 3 years 5 million yen or less</li> </ul>

[	Grant-in-Aid for	[No new proposals are called for FY2018.] (A), (B): Research conducted individually by a researcher of age 39 or younger. The
	Young Scientists	research period and total budget range are as follows;
		(A) 2 to 4 years 5 million to 30 million yen (B) 2 to 4 years 5 million yen or loss
		<ul><li>(B) 2 to 4 years 5 million yen or less</li><li>*Classification of (A)/(B) is according to the budget range.</li></ul>
Early-Career Scientists		[Starting a call for proposals from FY2018.] Research conducted by an individual researcher (*) who is less than 8 years after Ph.D. acquisition. As an interim measures, a non-Ph.D. researcher who is 39 years old or younger can also apply. (The period is 2 to 4 years. The budget is up to 5 million yen per project.)
	Grant-in-Aid for Research Activity Start-up	Research conducted by a single researcher who has been freshly appointed to a research position, or who has returned from his/her maternity, childcare or other kinds of leave. (The period is up to2 years. The budget is up to 1.5 million per fiscal year.)
	Grant-in-Aid for Encouragement of Scientists	Research conducted by an individual who is ineligible for application for other KAKENHI categories (e.g. technical staffs of research institutions, school teachers, company employees, etc.). (The period is 1 year. The budget range is between 100 thousand and 1 million yen per project.)
	nt-in-Aid for cial Purposes	Research projects of pressing urgency and importance.
	nt-in-Aid for	
Pub	lication of	
Scie	entific Research	
Res	ults	
	Publication of Research Results	Subsidy for publication and/or international dissemination of research achievements of high academic values executed by academic associations and other organizations.
	Enhancement of International	Subsidy for efforts by academic societies and other scholarly organizations to strengthen international dissemination of academic information for the purpose of international academic exchange.
	Dissemination of	
	Information Scientific	Subsidy for academic publication of research results (books) authored by an individual
	Literature	or a group of researchers.
	Databases	Subsidy for creation and operation of a database open to public use, by an individual or a group of researchers.
Gra Fell	nt-in-Aid for JSPS ows	Funding for research conducted by JSPS Fellows (including Foreign JSPS Fellows). (The period is up to 3 years.)
Fun	d for the	
	notion of Joint	
Inte	rnational Research	
	Fostering Joint International Research	<ul> <li>(A) Support of joint international research project conducted by a KAKENHI grantee in collaboration with researcher(s) at foreign university or research institution. Over a period of 6 to 12 months. The grant seeks to markedly advance research plans for the root research project and to foster independent researchers who can be internationally competitive. (The budget is up to 12 million yen.) (*) The name is changed from FY2018 call for proposals.</li> <li>(B) Support of joint international research project conducted by multiple domestic researchers and a researcher who belongs to overseas research institution. In addition</li> </ul>
		to the development of scientific research, the grant seeks to build out infrastructure of joint international research or further strengthen joint international research and to foster researchers who can be internationally competitive. (The period is 3 to 6 years. The budget is up to 20 million yen.)

International Activities Supporting Group	Support of international activities within Scientific Research on Innovative Areas. (Set period of the Area, up to 15 million yen per year) *After FY2018 call for proposal, "International Activities Supporting Group" will be incorporated into "Grant-in-Aid for Scientific Research on Innovative Areas "Administrative Group".
Home-Returning Researcher Development Research	Support of research to be conducted by a Japanese researcher with current affiliation abroad who is to be newly appointed at university or research institution in Japan. (The period is up to3 years. The budget is to 50 million yen.)
Generative Research Field	This category set for "Scientific Research (B/C)" is open to research proposals for which review within the conventional framework of research fields may be difficult and/or to applicants who prefer their proposals to be screened from a broader perspective relevant to the Generative Research Field. (The research period that can be applied for differs depending on the year of application.)

(\*) Individuals who are in the prospect of acquiring Ph.D. are also eligible. When counting the years after Ph.D. acquisition, the period of maternity leave and childcare leave can be excluded.

## 2. What Are the KAKENHI rules?

There are three types of rules: application rules, assessment rules, and spending rules.

Please make sure to adhere to these rules.

### Application rules: eligibility and rules concerning the applications

(Contents of the "Application Procedures for Grants-in-Aid for Scientific Research")

O Assessment rules: rules concerning the pre-assessment (review), the interim assessment, the ex-post assessment, the research progress assessment, etc.

(Contents of the "Rules concerning the review and assessment for Grants-in-Aid for Scientific Research", etc.)

### O Spending rules: rules concerning the use of KAKENHI

(Contents of the "supplementary conditions" and "funding conditions" when funding is decided)

- KAKENHI has categories funded by "Series of Single-year Grants" and categories funded by "the Multi-year Fund". Usage rules can differ, so please make sure to thoroughly check the "Supplementary Conditions" (Series of Single-year Grants categories) and "Funding Conditions" (the Multi-year Fund) for the applicable rules
- See the KAKENHI website for the application rules, assessment rules and spending rules, and KAKENHI FAQ about the program.
   Ministry of Education, Culture, Sports, Science and Technology (MEXT): http://www.mext.go.jp/a\_menu/shinkou/hojyo/main5\_a5.htm
   Japan Society for the Promotion of Science (JSPS): http://www.jsps.go.jp/j-grantsinaid/index.html

- If you still have questions about the KAKENHI rules, please submit an inquiry to MEXT or JSPS through your research institution.
  - A point of contact for opinions and request concerning Grants-in-Aid for Scientific Research is available at the JSPS website. If you have any opinion or request, please submit to the following URL. https://www.jsps.go.jp/jiken\_youbou/index01.html
- \* A point of contact for opinions and requests concerning competitive funds is available at the Cabinet Office. If you have any opinion or request concerning improvements relating to the ease of use of competitive funds in general, please leave them at the following URL.

https://form.cao.go.jp/cstp/opinion-0098.html

## 3. What Is the Review Process?

The call for proposals, review, and other stages are scheduled to enable research to be started as soon as possible.

O Review is performed with the aim of reaching a provisional grant decision to grant the funding by the beginning of April, so that research funds can be used without interruption.

FY2018 Schedule (from Application to Official Grant Decision) for Scientific Research (A), (B), (C), Grant-in-Aid for Early-Career Scientists

- Start of the call for proposals: September 1 of previous fiscal year
- Application deadline: November 8 of previous fiscal year
- Review period: from early December to middle of March of previous fiscal year
- Notice of the provisional grant decision: April 1
- Notice of the official grant decision: Late June
- \* The Grant will be disbursed after notice of provisional grant decision.
- O Grant-in-Aid for Research Activity Start-up is for researchers who could not submit a proposal during the call for proposals period (September–November of the previous academic year) and therefore follows a different schedule for the call for proposals and review.

### FY2018 Schedule for Research Activity Start-up

- Start of the call for proposals: March 1 of previous fiscal year
- Application deadline: May 9

# 4. What Is Eligibility for KAKENHI Application?

In order to apply, applicants should meet the requirements (1) and (2) below.

(1) At the time of application, applicants should belong to a research institution and meet all the following requirements.

Applicants need to be recognized by a designated research institution (see note below) as being a researcher who meets the requirements a), b), and c) below, and need to be registered in the Cross-ministerial Research and Development Management System (e-Rad) as eligible to apply for a Grant-in-Aid.

#### Requirements

- a) The applicant must be an individual belonging to a research institution with job assignment including research activity within the said institution. (Whether the job is paid/unpaid, or full-time/part-time is irrelevant. It is not a prerequisite of eligibility that the research activity constitutes the main part of his/her job.)
- b) The applicant must be actually engaged in research activity in his/her research institution. (Those who are only engaged in research assisting jobs are ineligible.)
- c) The applicant must not be a graduate student or any other categories of student. (An individual who has a position in a research institution with research activity as his/her main job (e.g., university teaching staff, researcher belonging to a company, etc.), and holds a student status at the same time.)

(The conditions or evaluation criteria on meeting the above requirements might be set separately by contract or provisions of your research institution. Please verify with your research institution where necessary.)

Note:

A research institution as defined in Article 2 of the Rules for the Handling of Grants-in-Aid for Scientific Research (announced by the Ministry of Education, Culture, Sports, Science and Technology (MEXT))

- 1) Universities and inter-university research institutions
- 2) MEXT facilities and other institutions engaged in scientific research
- 3) Technical colleges

- 4) Institutions designated by the Minister of Education, Culture, Sports, Science and Technology (MEXT)
- (2) Applicants should not have been designated as "Not eligible to apply for receipt of funding in FY2018", due to having committed improper grant spending, fraudulent grant acquisition, or research misconduct using Grantsin-Aid for Scientific Research or other competitive funding.
- \* There are research categories such as "Encouragement of Scientists" and "Research Activity Start-up" that differ in eligibility for KAKENHI application, so please make sure to confirm the Application Procedures for Grants-in-Aid for Scientific Research when applying.

# 5. What Issues Need to Be Considered When Applying?

Applicants should carefully confirm the contents of the Application Procedures for Grants-in-Aid for Scientific Research.

- Applicants should be sure to check the following three matters carefully before applying.
  - (1) Ascertainment of the Eligibility for KAKENHI Application (see page 8 "4.What Is Eligibility for KAKENHI Application?")

#### (2) Confirmation of the Researcher Information Registered

• The procedures for registration of researcher information and for revision of that information are performed by your research institution using e-Rad. Applicants should check with the person responsible for this in their research institution for details of the procedures.

(3) Obtainment of an ID and a Password for e-Rad

• Your e-Rad ID and password are provided by your research institution.

## O Applicants should take special care regarding the following matters when applying.

- When applying for multiple research projects, the restrictions regarding unreasonable reduplication, excessive concentration, or parallel submission of research proposals.
- Errors or omissions in filling out the application information
- The format of the application documents may not be changed.
- When one or more Co-Investigators are added to the research team, applicants should ensure to collect their consent in the form of Written Consent of the Co-Investigator, and retain it.
- O The corrections and resubmission cannot be accepted after the application documents have been submitted via the Electronic Application System.

The Principal Investigator, Co-Investigators, Collaborating Researcher, and Research Collaborators setting up a research team are defined as follows.

Principal Investigator (member of the funded project)
 The researcher with full responsibility for the implementation of the funded project

### **O** Co-Investigator (member of the funded project)

A researcher responsible for carrying out the funded project along with the Principal Investigator, who receives a share of the funds from the Principal Investigator and may use these funds at their discretion

### O Research Collaborator (not a member of funded project)

A researcher who cooperates in carrying out the research project

- Even a person who is not eligible to apply for funding can participate as a Research Collaborator.
- A Research Collaborator, like a Collaborating Researcher, does not have discretion regarding the use of the grant-in-aid funds.
- Note: The category of Collaborating Researcher has been abolished since April 2018 and its role has been integrated into the Research Collaborator.

## 6. How Are Applications Reviewed?

A peer review process is carried out in order to select high quality research projects.

- (\*) Peer review refers to a process of "reviews" carried out by "peers". For KAKENHI grants, the prominent researchers who work hard at each academic fields and stand at the front of "knowledge creation", will review and assess enthusiastically.
- O More than 7,000 researchers are involved in the review process.
  - In order to ensure the fair selection of the highest quality review committee members, JSPS makes use of a database of review committee candidates (with approximately 97,000 persons registered) consisting largely of researchers who themselves were selected for KAKENHI funding.

## \* The KAKENHI review process is possible thanks to the cooperation of researchers.

O Upon completion of review, the names of the review committee members are disclosed on the KAKENHI website.

## O Disclosure of the review results for research projects that were not adopted

- As for some research categories such as Grant-in-Aid for Specially Promoted Research, Grant-in-Aid for Specially Research (S/A), Grant-in-Aid for Challenging Research (Pioneering/Exploratory), Grant-in-Aid for Scientific Research (B/C) application section "Generative Research Fields", where the Comprehensive Review is conducted, the approximate ranking, the opinions expressed in the review results and some other items will be disclosed.
- As for some other research categories such as Grant–in-Aid for Scientific Research (B/C) application section "General", Grant-in-Aid for Early-Career Scientists, where Two-Stage Document Review is conducted, the approximate ranking, the review results by rating elements, the standard-format opinion and some other items will be disclosed.

### O Audit of review

• After review is completed, an audit and analysis of the review is carried out. If a review committee member is suspected of improper actions in the review process, that person will be disqualified from review in the next fiscal year, among other measures taken to ensure fair review.

#### O Disclosure of the review policies and criteria

• Please see the MEXT and JSPS KAKENHI websites for information about review.

Ministry of Education, Culture, Sports, Science and Technology (MEXT): http://www.mext.go.jp/a\_menu/shinkou/hojyo/main5\_a5.htm

Japan Society for the Promotion of Science (JSPS): http://www.jsps.go.jp/j-grantsinaid/index.html

## 7. When Do the Research Grants Become Available for Use?

The KAKENHI can be used without interruption after receiving a notice of the provisional grant decision in the initial fiscal year until the end of the final fiscal year.

ltem	Single-year Grants	Multi-year Fund
Start of research work (Notice of provisional grant decision) (Notes 1, 2)	New projects: April 1 (Except a part of category)	
	Continued projects: April 1	Continued projects: There is no need to be concerned about fiscal years during the period of projects.
	* After the notice of provisional grant decision, the necessary contracts (e.g. purchasing of items and hiring of Research Collaborators, etc.) can be concluded and actual research activities can be started before KAKENHI is disbursed and received.	
Deadline for the delivery of goods and provision of services necessary for the research	By March 31 of each fiscal year	Deadline for the delivery of goods and provision of services necessary for the research
	* Recipients of grants should ask their research institution for any clarification.	

#### Others

If there is unused amount at the end of the period of the funded project, it should be refunded.

\*There will be no disadvantage in the subsequent review of KAKENHI even if you refund unused amount of money.

(Note 1) The research grants to the research institutions will be remitted around July for the first term disbursement and around October for the second term one.

(After the 2<sup>nd</sup> fiscal year for Multi-year fund, the first term will be disbursed at the beginning of the fiscal year.)

As for necessary expenses, the research institutions should delay the payments until receiving the research grants or they should pay temporarily and should be reimbursed after receiving research grants. Recipients of grants should ask their research institution for any clarification.

(Note 2) Please keep in mind that in the case of new projects for the Fund for the Promotion of Joint International Research (Fostering joint international research (A), Returning Researcher Development Research), the start of research work is not on the day of notice of provisional grant decision, but on the day the form for formal application for grant delivery is submitted.

## 8. What Is Management by Institutions?

Management and procedures for Grants-in-Aid for Scientific Research are carried out by research institutions.

### < Reasons for having research institutions perform the management of Grants-in Aid for Scientific Research >

- (1) To reduce the burden on researchers
  - Researchers can thereby concentrate on their research.
- (2) To prevent rules from being violated inadvertently



- Researchers, who may not be familiar with accounting procedures, etc., are thereby prevented from making mistakes.
- O When using KAKENHI, researchers should observe the "Supplementary Conditions" and the "Funding Conditions" in the Spending Rules, as well as the accounting rules prescribed by the research institution to which they belong.
  - If you have any questions similar to those below concerning the purchasing of goods, please direct them to the person in charge of managing KAKENHI at your research institution.



✓ Can faculty order goods?
✓ What about delivery inspection?
✓ Is payment done in advance?
Or is it payment upon completion? etc.

## 9. What Dose Direct Expense Cover?

Direct expense can be used broadly for the expenses necessary to carry out the research project (i.e. purchase of goods, travel expense, personnel cost/honoraria and miscellaneous expenses).

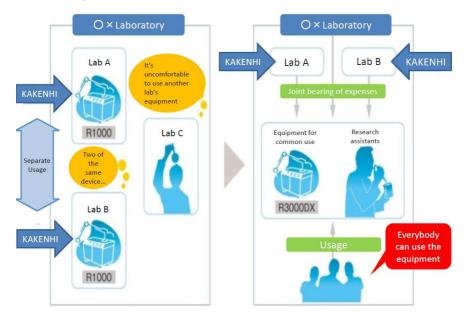
- O Direct expense can be used broadly for the expenses necessary to carry out the research project (includes the expenses for summarizing research results).
- O Direct expense is not approved are as follows, and it is alerted to specify in the spending rules etc.
  - Costs of buildings and facilities (excluding the costs for minor installations which become necessary because of the introduction of goods that have been purchased by direct expense)
  - Costs of handling accidents or disasters that occur during the implementation of the funded project
  - Personnel cost/honoraria for the Principal Investigator or Co-Investigators
  - Other kinds of costs that are to be appropriated from indirect expense
- O The Principal Investigator and Co-Investigator are obliged to take accountability for judgement and on how to spend the expenses as a member of the funded project.
- O When you use the research grant, you are requested to consider whether it is appropriate or not in terms of social acceptability to pay out as a direct expense for scientific research and also on the suitability in the priority of usage of the direct expense, as well as observing the terms of spending rules for KAKENHI under the regulations of affiliated research institutions.

Please make efforts to use effective and efficient use of KAKENHI through efforts such as combined use with other expenses and communal use of facilities.

- O Other expense (excluding those that have restrictions on usage) can be added to the direct expense and used for the funded project.
- O When the expense for usage related to the funded project is clearly distinguished from other usage, funding can be used to purchase consumables that are also used for other purposes.
- O When the expenses related to the funded project are clearly distinguished from other expenses, funding can be used for a single trip involving both businesses related to the funded project and other business.
- O You can also plan for the communal use equipment.
  - Not only can you combined with different KAKENHI, it is also possible to combine the funds of certain research funds in a special system that allows combination for the purchase of equipment (see the below URL) to the direct expense and buy equipment for communal use.

(\* "Concerning the purchase of communal equipment with funds from different research funds (combined use)"

http://www.mext.go.jp/a\_menu/shinkou/torikumi/1337578.htm)



#### (Example image of combined use of KAKENHI)

 As long as it does not interfere with the research, equipment purchased with KAKENHI may be used for other research as well.

## **10. What Are Indirect Expense?**

Indirect expense is the funds provided to the research institution to support the research activities for which KAKENHI was granted, as well as to upgrade their research environment.

- O Indirect expense is expenses for research institutions delivered at a fixed ratio to direct expense.
  - The amount of 30 percent of the direct costs will be provided as indirect expense apart from direct expense.
- O Research institution may use indirect expense to improve the R&D environment of researchers who obtain competitive funding and/or improve the functions of the overall research institution.

< Usage examples of indirect expense >

- Personnel cost (use as personnel cost for the Principal Investigator and Co-Investigators is not prohibited)
- Assignment of technical personnel for sharing of equipment and maintenance of shared equipment
- Facility costs (maintenance and management costs, etc.)
- Equipment costs (purchase costs, operation costs, etc.)
- Library costs (facility maintenance costs, upkeep costs, management costs)
- Consumables expenses for shared photocopy machines, printers, etc.
- Costs of research publicity activities
- Necessary costs for management procedures related to competitive funding
- Patent application costs, patent attorney fees, cost of requesting review, etc.

## **11. Can a Research Plan Be Modified?**

Based on the progress of research, the following changes can be made. (Application and/or notification to JSPS is not required)

## O Changes in allocation of direct expense (within a range of 50% of the total amount)

• For each expense item (expenses for goods, travel expenses, personnel cost/honoraria, miscellaneous expenses), allocation of expenses can be changed freely within a range of 50% of **the total amount of the direct expense (\*)** (When 50% of direct expense is ¥3 million or less, a difference between the actual and planned expenditure is allowed up to ¥3 million.)

#### (\*) The total amount of the direct expense:

Single-year Grants : decided expense amount of each fiscal year Multi-year Fund : decided expense amount for the entire research periods panning several fiscal years

Partial Multi-year Fund : expense necessary for other business for each fiscal year as written on the application form

## O Changes to the following items described on the form for formal application for grant delivery

• "Division of roles", "direct expense (allocation of shares of each researcher)" (change in amount of shares), "research implementation schedule", "details of the main goods", etc.

#### Note:

Since research activities are by their nature subject to change as the research develops, the above changes are left to the discretion of the researchers and research institutions. It is important, however, that the decision be made properly, always from the standpoint of effectively carrying out research in order to achieve the original research objectives.

The following changes can be made, if the appropriate procedures are followed. (<u>Application and/or notification</u> to JSPS is required)

O Major change in allocation of direct costs

• Researchers need to go through the necessary procedures for changing allocation to each expense item in advance if the amount of the change exceeds 50% of **total amount of the direct cost (\*).** (When a difference between the actual and planned expenditure is over ¥3 million, researchers must take procedure in advance.)

#### (\*) The total amount of the direct expense:

Single-year Grants : decided expense amount of each fiscal year Multi-year Fund : decided expense amount for the entire research periods panning several fiscal years

Partial Multi-year Fund : expense necessary for other business for each fiscal year as written on the application form

#### O Addition or removal of a Co-Investigator

- Applicants should note carefully that changing a Co-Investigator to a Collaborating Researcher participating on the same research team amounts to removal of a Co-Investigator.
- O Extension of the research period due to childcare leave, etc.
- O Change in research institution to which the Principal Investigator belongs
  - If the applicant moves to a research institution that is not eligible for receiving KAKENHI, continuation of the research using KAKENHI will not be permitted.
- O Extension of the period of the funded project\*

• The Multi-year Fund (including the Multi-year fund part of a partial Multiyear fund), can be extended for a period of one year by going through the procedures for the acceptance of extension of the funded project during the last year of the project. (In the case of Single-year Grants carry over procedures are necessary)

\* As for Fund for the Promotion of Joint International Research (Fostering Joint International Research), the subsidized project period can be extended until the end of the fiscal year to which the day on which the three years have elapsed from the date of formal application for grant delivery.

## 12. Using "Series of Single-year Grants"?

As the official grant decision is made by each fiscal year, research grant must be used by each fiscal year. If certain conditions are met, they can be used ahead of schedule or carried over to the next fiscal year.

- O Even if the research period is over several years, the provisional grant decision and the official grant decision to the research grant for Series of Single-year Grants will be made only for research grant for the relevant fiscal year by annual basis.
- O If the funded project is not expected to be completed for unavoidable reasons that could not be anticipated at the time of the official grant decision, research grant can be carried over to the next fiscal year for use.
  - See the following website for details of Carryover Funds. Ministry of Education, Culture, Sports, Science and Technology (MEXT): http://www.mext.go.jp/a\_menu/shinkou/hojyo/1299857.htm Japan Society for the Promotion of Science (JSPS): https://www.jsps.go.jp/j-grantsinaid/16\_rule/rule.html#kurikoshi
- O By using the "Adjustment Fund", "Single year Grants" can be used ahead of schedule or be used in the next fiscal year, if certain conditions are met.
  - See the following website for details of Adjustment Funds. Ministry of Education, Culture, Sports, Science and Technology (MEXT): http://www.mext.go.jp/a\_menu/shinkou/hojyo/1330870.htm Japan Society for the Promotion of Science (JSPS): https://www.jsps.go.jp/j-grantsinaid/16\_rule/rule.html#tyousei

## 13. Using "the Multi-year Fund"?

As the official grant decision is made for several years, research grant can be used according to the progress of research without sticking to fiscal year divisions.

- O For the Multi-year Fund, research grant for multiple fiscal years will be budgeted at one time, so we will make the provisional grant decision and the official grant decision on the research grant for the entire research period over several years in the first year.
- O Research grant can be used ahead of schedule based on the progress of the research.
- O During the period of the funded project, research grant can be carried over to the next fiscal year without prior authorization procedures.
- O During the period of the funded project, goods can be purchased across fiscal years.

During FY2018, the research categories funded by the Multi-year Fund are as follows:

Multi-year Fund	-Grant-in-Aid for Scientific Research (C)
	-Challenging Research (Exploratory)
	-Grant-in-Aid for Early-Career Scientists
	-Grant-in-Aid for Scientific Research (B) ("Generative
	Research Fields " adopted in FY2015 and after)
	-Grant-in-Aid for Special Purposes
	-Fund for the Promotion of Joint International Research
	(Fostering Joint International Research (A/B) and Returning
	Researcher Development Research)
	-Grant-in-Aid for Challenging Exploratory Research (Research
	projects adopted in FY2016 and before)
	-Grant-in-Aid for Young Scientists (B) (Research projects
	selected in FY2017 and before)
	-Fund for the Promotion of Joint International Research
	(International Activities Supporting Group) (Research projects
	adopted in FY2016 and before)
Partial Multi-	-Grant-in-Aid for Scientific Research (B)
year Fund	-Grant-in-Aid for Young Scientists (A)
	(In new Research projects adopted in from FY2012 to FY2014
	except projects with total direct expense of $\pm 5$ million or
	less)
	I

## 14. What Assessment Is Performed During and After the Research Period?

Self-assessment or third-party assessment can be used as a basis for reviewing research conducted or for leading to development into new research.

- O Self-assessment is conducted for all research projects after the end of each fiscal year (when preparing research performance report, etc.).
- O In the case of Specially Promoted Research and Scientific Research (S), an interim assessment will be conducted around the middle of the research period. An ex-post assessment will be conducted in the fiscal year following the end of the research period.
  - In the case of Specially Promoted Research and Scientific Research (S) adopted in FY2017 and before, a research progress assessment is carried out in the fiscal year before the final fiscal year of the research period.



• For Specially Promoted Research, on and after FY2018, document-based follow-up surveys

will also be performed in the third year after the completion of the research period.

- O For Scientific Research on Innovative Areas, an interview-based interim assessment is carried out in the third year after the setting of the research area and an interview-based ex-post assessment in the fiscal year following the end of the research area.
- O The results of the above "self-assessment", "research progress assessment", "interim assessment" and "ex-post assessment" will be made public through the "Database of Grants-in-Aid for Scientific Research (KAKEN)".

# 15. How Are the Research Results and Achievements Disseminated?

Disseminating and publicizing the research results and achievements are important for promoting the use of the research achievements to society and for deepening public understanding of the Grants-in-Aid for Scientific Research program.

- **O** Writing a Report on the Result is mandatory.
  - Researchers should write a report on the results using the designated form upon completion of the research and at the end of each fiscal year (if the extending of funding across fiscal years has been allowed).
  - For KAKENHI of the Multi-year Fund type, a report on the state of implementation is made as a form of annual dissemination. The report on the results is made after completion of the research.
- O Writing a Report on the Research Achievements is mandatory.
  - When the research period is completed, researchers should submit a Report on the Research Achievements.
- O Since the KAKENHI is funded by such as taxes which are collected from people, researchers are requested to explain the acquired results and achievements to the society and people as clearly as possible.
- O The submitted Report on the Research Results, the Report on the State of Research Implementation, and the Report on the Research Achievements are published using the Database of Grants-in-Aid for Scientific Research (KAKEN) of the National Institute of Informatics.

The research using the KAKENHI should be carried out based on researcher's own self-awareness and responsibility. Therefore the publication on the implementation of the research or research achievements, etc. should not come from the government request and the views and responsibilities on the research achievements should be attributed to the researchers themselves. The Database of Grants-in-Aid for Scientific Research (KAKEN) is a database created and made public by the National Institute of Informatics(NII) in cooperation with MEXT and JSPS

O On KAKEN, the following information is recorded, disclosed and made available for use to the public.

	<b>KAKEN</b> Grants Grante-n-Aid for Scientific Research Database	
Database of Grants in And for Elecentric Research/XAXEI National Institute of Informatics (NE) in cooperation with T B Full Text Search	Is a public defidient which recides information on adopted projects, assessment, and measurit achievements from P AT and 2015	a Grants in Ard for Scantific Research/OV/22/MI() Program. The system is hoated by the Search V Advanced Search
(NII) Databa	se of Grants-in-Aid for Scientific R	esearch (KAKEN)
https://kakei	.nii.ac.jp/en/	

#### **O** Information on Adopted Projects

Name of the research project, research category, name(s) of the researcher(s), affiliated research institute, research team information, research outline, opinions expressed in review results, amount allotted etc. are disclosed

#### **O** Assessment Information

Self-assessment report, interim assessment, research progress assessment, results of the follow-up assessment, and ex-post assessment are disclosed in PDF format

#### **O** Information on Research Achievements

The Report on the Research Achievements is disclosed in PDF format

If researchers presented the research achievements in public, researchers should make sure to indicate it that the obtained as a result of a KAKENHI. (Please remember to include this in the acknowledgement)

- O When publishing research achievements that have been obtained as a result of a KAKENHI, researchers should always be sure to indicate that a KAKENHI was received.
- If the indication that support was received in the form of a KAKENHI grant is to be made in the acknowledgments, researchers should include JP and the 8-digit JSPS KAKENHI Grant Number.

Researchers should be sure to follow this procedure.

O Examples of the appropriate format for the indication in the acknowledgments are given below.

When one KAKENHI has been used to write the paper (Grant Number18K45678)

- English: This work was supported by <u>JSPS KAKENHI Grant Number JP18K45678</u>.
- Japanese: 本研究は JSPS 科研費 JP18K45678 の助成を受けたものです。

When multiple KAKENHI have been used to write the paper (three in this case) (Grant numbers xxxxxxx, yyyyyyy, zzzzzzz)

- English: This work was supported by <u>JSPS KAKENHI Grant Numbers JPxxxxxxx</u>, <u>JPyyyyyyy, JP zzzzzzz.</u>
- Japanese: 本研究は JSPS 科研費 JPxxxxxxx, JPyyyyyyyy, JPzzzzzzz の助成を受けたもので す。

\* The each research categories for KAKENHI in English will be shown in the following URL.

Japan Society for the Promotion of Science (JSPS):

https://www.jsps.go.jp/j-grantsinaid/01\_seido/01\_shumoku/index.html

- O On the occasion such as you release the research achievements using the KAKENHI broadly to the public, the examples of the indication noting that the research achievements are based on the personal views are given below.
  - English: Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the author(s)' organization, JSPS or MEXT.
  - Japanese: 本研究の成果は著者自らの見解等に基づくものであり、所属研究機 関、資金配分機関及び国の見解等を反映するものではありません。
- O When announcing the achievements of research funded with a KAKENHI at an academic society meeting, a symposium, or other meetings, researchers should make use of the KAKENHI logo whenever possible.

#### KAKENHI logo



The logo can be downloaded from the following websites. **Ministry of Education, Culture, Sports, Science and Technology (MEXT):** http://www.mext.go.jp/a\_menu/shinkou/hojyo/1321563.htm **Japan Society for the Promotion of Science (JSPS):** http://www.jsps.go.jp/j-grantsinaid/06 jsps info/g 120612/index.htm

O Papers supported by the KAKENHI Researches are, as a principle, to be handled under the open access policy. The Japan Society for the Promotion of Science (JSPS) establishes in principle an implementation policy on open access of papers, which are supported by research funds starting from KAKENHI by the JSPS. Please note that this is not the case if it is difficult to make open access due to

reasons such as copyright and being in an environment where the repository of your institution can not accommodate open access. Japan Society for the Promotion of Science (Implementation Policy): https://www.jsps.go.jp/data/Open\_access.pdf

O Your active registration on the researcher information including research achievements into the researchmap is requested.

"Researchmap" (formerly "Read&Research map" http//researchmap.jp/) is, as a general guide to Japanese researchers, Japan's largest researcher information database. Registered information on research results can be openly disseminated over the Internet. As research map is linked to e-Rad and many university faculty databases, it allows registered information to be accessed by other systems. Furthermore, the Japanese Government has planned to utilize further the research map, please register researcher information in research map.

# 16. What Happens If the Rules Are Not Followed?

Those who fail to use the funds appropriately according to the rules will be subject to penalties, including restrictions on fund grants, being asked to return funds, and restrictions on applying for funding.

### Improper Grant Spending:

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

• Return of KAKENHI: Part or entire amount

• Suspension of eligibility to apply: 1 to 10 years (The researcher fraudulently using the funds, those who conspired in improper grant spending, and persons responsible for managing the grant that is spent improperly)

### Fraudulent Grant Acquisition:

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

- Return of KAKENHI: Entire amount
- Suspension of eligibility to apply: 5 years
- (The researcher receiving the funds and those who were involved)

### •

#### **Research Misconduct:**

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

- Return of KAKENHI: Part or entire amount
- Suspension of eligibility to apply: 1 to 10 years

(The individual found to have been involved in research misconduct and persons responsible for the contents of the paper, etc., affected by the research misconduct)

- The funding of grants will also be suspended for research projects that already have been adopted. It will also become impossible for Co-Investigators who have been allotted funds to receive a share of these funds.
- In principle, an outline of the fraud, including the names of researchers found to have committed fraud, is made public.
- Applications for, and participation in, competitive funds other than KAKENHI may be limited.

Fraudulent grant acquisition, improper grant spending and research misconduct while conducting research will undermine public trust in scientific research as a whole. It is, therefore, vital that those who utilize public research funds conduct their research activities in accordance with appropriate research ethics.

# 17. What is the Code of Conduct for Scientists to Adhere?

O Both to ensure the quality of scientific knowledge and for individual scientists and scientific community to gain the trust of society, it is essential to conduct their research activities fairly and conscientiously with the adherence to the code of conduct for scientists.

Take careful note of both the statement "Code of Conduct for Scientists" (section I. "Responsibilities of Sciences") by the Science Council of Japan and also the contents of "For the Sound Development of Science - The Attitude of a Conscientious Scientist -" (especially section I "What Is a Responsible Research Activity?") issued by the Japan Society for the Promotion of Science (JSPS).

## [Extraction from "Code of Conduct for Scientists – Revised Version –" by the Science Council of Japan dated on 25 January 2013]

#### I Responsibilities of Scientists

#### (Basic Responsibilities of Scientists)

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

#### (Attitude of Scientists)

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

#### (Scientists in Society)

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

#### (Research that Answers to Social Wishes)

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

#### (Accountability and Disclosure)

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

#### (Dual Use of Scientific Research Outcomes)

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

#### "Code of Conduct for Scientists" by the Science Council of Japan: http://www.scj.go.jp/ja/scj/kihan/

["For the Sound Development of Science – The Attitude of a Conscientious Scientist –" by the Japan Society for the Promotion of Science (JSPS)]

(Japanese version (text version)) ("For the Sound Development of Science" Editorial Committee on JSPS): https://www.jsps.go.jp/j-kousei/data/rinri.pdf

## O Participation in a research ethics education coursework and compliance education etc.

The Principal Investigators and Co-Investigators are asked to engage in research activities after learning the ethical standards demanded of researchers etc. by participating in the research ethics education coursework and compliance education implemented by their research institution.

## O Participation status in a research ethics education coursework etc. will be confirmed on the occasion of the formal application for grant delivery.

Participation status in a research ethics education coursework etc. for the Principal Investigator and the Co-Investigator will be confirmed on the occasion of the formal application for grant delivery into the electronic application system. Please make sure to participate in the research ethics education coursework etc. in accordance with the research institution's policy on the research ethics education coursework etc.

In addition, at the JSPS provides an research ethics educational material such as "For the Sound Development of Science -The Attitude of a Conscientious Scientist-" (Green Book), and "e-Learning Course on Research Ethics [eL CoRE]" based on Green Book, so please utilize it appropriately. Japan Society for the Promotion of Science (JSPS): https://www.jsps.go.jp/j-kousei/rinri.html

## Depending on the research content, necessary procedures may be stipulated by laws and guidelines.

Research Contents Included in the Research Plan	Related Laws and Guidelines
Human Genome/Gene Analysis	Ethical Guidelines for Human
Research	Genome/Gene Analysis Research
Medical and Health Research Involving	Ethical Guidelines for Medical and
Human Subjects	Health Research Involving Human
	Subjects
Research Including the Handling of	○Act on Regulation of Human Cloning
Specified Embryos	Techniques
	○Guidelines on the Handling of
	Specified Embryos
○Research Including the Derivation	○Guidelines on the Derivation of
and Utilization of Human Embryonic	Human Embryonic Stem Cells
Stem Cells	○Guidelines on the Distribution and
<ul> <li>Research Including Producing Germ</li> </ul>	Utilization of Human Embryonic Stem
Cells from Human iPS Cells, etc.	Cells
	○Guidelines on the Research on
	Producing Germ Cells from Human
	iPS Cells or Human Tissue Stem Cells
Research on Assisted Reproductive	Ethical Guidelines for Research on
Technology Treatment	Assisted Reproductive Technology
	Treatment Producing Human Fertilized
	Embryos

○Clinical Trials on Gene Therapy etc.	○Ethical Guideline for Clinical Trials on
○Research Including Genetic	Gene Therapy, etc.
Recombination Experiment	○Act on the Conservation and
	Sustainable Use of Biological Diversity
	through Regulations on the Use of
	Living Modified Organisms, etc.
Research Plan Including Research	Act on the Prevention of Infectious
Using Pathogens, etc.	Diseases and Medical Care for
	Patients with Infectious Diseases
Studies Involving Animal Experiments	Fundamental Guidelines for Proper
	Conduct of Animal Experiment and
	Related Activities in Academic
	Research Institutions
Research Including Acquisition, Bring-	The Guidelines on Access to Genetic
in, Purchase and Receipt of Foreign	Resources and the Fair and Equitable
Biological Samples	Sharing of Benefits Arising from Their
	Utilization, etc.
Studies Involving Provision of	Foreign Exchange and Foreign Trade
Technology for which the Influence on	Act, etc.
Nonresidents or Foreign Countries is	
Regulated or Export of Goods	

In addition to the above, laws and regulations, guidelines, etc. may be stipulated according to research content and policy, so please be aware.

The above table is tentative translation.

## 18. On FY2018 KAKENHI Reform

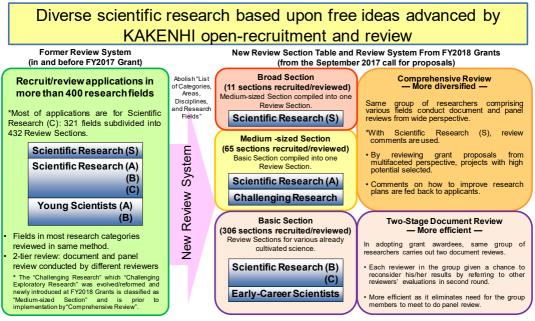
## **O FY2018 Reform Overview on the KAKENHI Review System**

The JSPS introduced new "Review Section Table" and "Review Method" starting from the grant for FY2018 (call for proposal in September, 2017), aiming to enhance the quality of review and to promote more original research.

- The "List of Categories, Areas, Disciplines and Research Fields" applied in and before FY2017 was abolished and a new "Review Section Table" consisting of "Basic Section", "Medium-sized Section" and "Broad Section" has been adopted for the review.
- We have introduced the Comprehensive Review in which both document review and panel review are conducted by the same reviewers and also introduced the Two-Stage Document Review in which the document reviews are conducted in each stage by the same reviewers instead of the method in which both the document review and the panel review are conducted by different reviewers applied in and before FY2017. (The review method depends on the research category).

Please refer the details in the following URL. Ministry of Education, Culture, Sports, Science and Technology (MEXT): "Trend on KAKENHI Reform" http://www.mext.go.jp/a menu/shinkou/hojyo/1362786.htm

## Summary - FY2018 Reform of the KAKENHI Review System



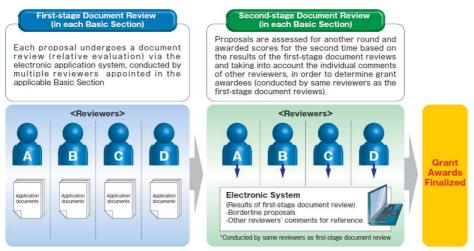
※1 The Review Section for the large-scale research category ("Grant-in-Aid for Specially promoted Research ", "Grant-in-Aid for Scientific Research on Innovation Areas") which have been reviewed on "category unit" of Humanities and Social Sciences, Science and Engineering, Biological Sciences, etc. is basically implemented it as it is. As for the review method, we plan to gradually improve it after the review progress of the event.

## O Introduction of New Review Methods "Two-Stage Document Review" and "Comprehensive Review"

New review methods has been employed from the 2018 funding year (call for proposals: September 2017).

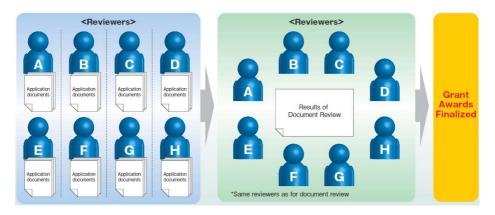
## [Two-Stage Document Review]

—Grants-in-Aid for Scientific Research (B/C) and Early-Career Scientists Each Scientific Research (B) proposal is reviewed by six reviewers; each Scientific Research (C) and Early-Career Scientists proposal is reviewed by four reviewers.



## [Comprehensive Review]

—Grants-in-Aid for Scientific Research (A) and Challenging Research Between six and eight reviewers are appointed for each proposal in the Scientific Research (A) and Challenging Research categories, and each proposal is subject to both a document review and a more thorough and multi-faceted panel review. In the event that a large number of applications is received, the review may include processes such as preliminary screening (Challenging Research only) or random assignment of research proposals.



\*For Scientific Research (S), in addition to the Comprehensive Review, there is a plan to introduce review comments produced by researchers in closely-related specializations, taking into account the specialized nature of applications.

## **O Reform for Research Categories of KAKENHI**

Starting from FY2018 of KAKENHI program (call for proposal in September, 2017), Research Categories of "Scientific Research" are core category, and their complementary Research Categories of "Transformative Research" categories are re-classified and strengthened as new categories.

- Research Categories of "Scientific Research" Research Categories to consolidate scaffolds for academic research which supports research aimed at deepening and developing academic disciplines based on accumulation in past.
- Research Categories of "Transformative Research"
   Research Categories to support research based on innovative ideas, changing of scientific phenomena with potential to lead change and conversion, development of new areas.

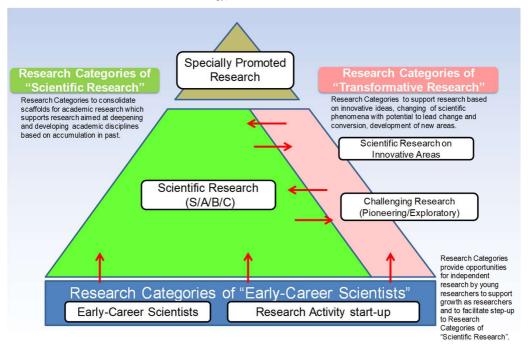
43

· Research Categories of "Early-Career Scientists"

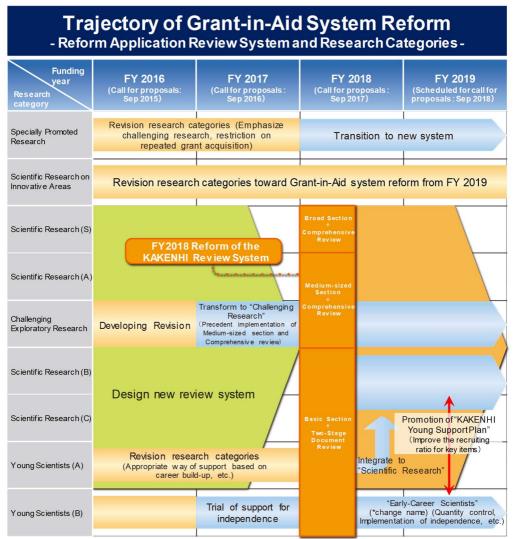
Research Categories provide opportunities for independent research by young researchers to support growth as researchers and to facilitate step-up to Research Categories of "Scientific Research".

#### Please refer the details in the following URL.

http://www.mext.go.jp/b\_menu/shingi/gijyutu/gijyutu/037/houkoku/1381248.htm (Ministry of Education, Culture, Sports, Science and Technology (MEXT): "Strengthening support for challenging research by KAKENHI" by Subdivision on Grants-in-Aid for Research in the Subdivision on Science, Council for Science and Technology)



## O Trajectory of Grant-in-Aid System Reform (Process sheet)



Note) The review section for the large-scale research category ("Grant-in-Aid for Specially promoted Research", "Grant-in-Aid for Scientific Research on Innovation Areas") which have been screened on "category unit" of Humanities and Social Sciences, Science and Engineering, Biological Sciences. etc. is basically implemented it as it is.



## Inquiries:

## Scientific Research Aid Division, Research Promotion Bureau Ministry of Education, Culture, Sports, Science and Technology

3-2-2 Kasumigaseki, Chiyoda-ku, Tokyo 100-8959 JAPAN Tel. 03-5253-4111 (ext. 4094, 4087, 4091) Website: http://www.mext.go.jp/a\_menu/shinkou/hojyo/main5\_a5.htm

## Research Aid Planning Division, Research Aid Division I, II, Research Program Department

## Japan Society for the Promotion of Science

5-3-1 Kojimachi, Chiyoda-ku, Tokyo 102-0083 JAPAN Tel. 03-3263-0964, 4796, 0976, 1431 Website: http://www.jsps.go.jp/j-grantsinaid/index.htm