

## **Scientific Research (B/C) (Application Section “General”) and Early-Career Scientists Assessment Criteria for Document Review**

Grants-in-Aid for Scientific Research (KAKENHI) aim to develop all the academic research from basics to applications remarkably throughout all research fields. In assignment review, each reviewer is required to judge appropriately and fairly whether or not to contribute greatly to this purpose with regard to the research projects submitted.

This research proposal will be reviewed by the Basic Section of the Review Section.

In the review method, all reviewers will conduct Two-Stage Document Review which research projects will be reviewed by the same reviewer over two stages by document review instead of “panel review”.

In the first stage of the review, an overall score is assigned to each research project in 4 grades based on relative evaluation. In addition, in order to disclose the results of the first stage of review to those who were not adopted and wish to disclose, we will make an absolute evaluation on individual rating elements concerning research contents etc. In the absolute evaluation carried out for each rating element, if “2 Somewhat insufficient” or “1 Insufficient” is assigned, we decide why it was judged as “Somewhat insufficient” or “Insufficient” for either item of the rating element.

In the second stage of the review, the same reviewer assigns newly a score on the applicable research project for the second stage review based on the result of the first stage document review. At that time, please check the review comments by reviewers (the first stage) etc. of all the reviewers who are reviewing the same research project, and assign a score based on their own insight.

The adoption of research projects and the allocation of research expenditures will be decided based on that score.

In the review, the research projects with high overall score do not necessarily have to be highly acclaimed research projects for all the individual elements.

While considering the diversity such as characteristics in the research field, please evaluate appropriately by finding a wide range of important research so that academic research can progress.

Also, please do not review the research projects participated by researchers who have interests.

## i Assessment Criteria

### [Rating Elements]

#### (1) Academic Importance of Research Project

- Is it an important research project to be promoted from the academic point of view?
- Is the “key scientific question” comprising the core of the research plan clear, and scientific significance, and originality recognized?
- Is it clear that the history leading to the conception of the research plan and domestic and overseas trends related to the proposed research and the positioning of this research in the relevant field?
- Can we expect an effect the wave to a wider academic, scientific, technological or society by conducting this research project?

Scoring Classification	Assessment Criteria
4	Excellent
3	Good
2	Somewhat insufficient
1	Insufficient

#### (2) Validity of Research Method

- Is the research method concrete and appropriate in order to achieve its research objective? Also, do the research expenditure ensure consistency with the research plan?
- Is the preparation status appropriate in order to achieve its research objective?

Scoring Classification	Assessment Criteria
4	Excellent
3	Good
2	Somewhat insufficient
1	Insufficient

#### (3) Appropriateness of Ability to Conduct Research and Research Environment

- Does it possess sufficient ability to conduct the research plan based on research activity over the past years?
- Have the research environment been arranged by the research facilities, equipment, research materials, etc. necessary to conduct the research plan?

Scoring Classification	Assessment Criteria
4	Excellent
3	Good
2	Somewhat insufficient
1	Insufficient

## [Overall Score and review comments by reviewers in the first stage review]

### [Overall score in the first stage review]

With respect to the adoption of each research project, focusing on the rating elements of (1) to (3) above, after conducting a comprehensive evaluation, please evaluate 4 grades according to the scoring distribution shown in the right column of the table below, and attach the overall score.

(If the number of research projects in charge is small, this is not the case.)

In the case of research projects that are “interested”, please write down the reason in the “Reason for Interests” column.

In addition, “The Status of Application and Acquisition of Research Grants” column and “Issues Relevant to Human Right Protection and Legal Compliance” column in the research proposal document is not taken into consideration in the overall score attached in the review. Please attach overall score based on the other each column etc. In the “Status of application and acceptance of research grant” column and “Issues Relevant to Human Right Protection and Legal Compliance” column, please check “iii Points to be Noted” for handling in review.

Scoring Classification	Indication on Scoring Distribution
4	10%
3	20%
2	40%
1	30%
Cannot evaluate because it has interests	—

Note: When evaluating, attach a score with the following as a guide.

“4: Very good”, “3: Good”, “2: Usual”, “1: Inferior”

### [Review comments by reviewers in the first stage review]

In the first stage of review, please fill in the review comments by reviewers focusing on the pros and cons of the research project the “Review comments by reviewers” column of all research projects. Please note that it is unnecessary to attach a review comments by reviewers at the second stage of review.

This review comments by reviewers will be presented to other reviewers in order to deepen their understanding of research projects when attaching a new overall score at the second stage review.

### [Overall score in the second stage review]

With respect to the adoption of each research project to be reviewed at the second stage based on the results of the first stage of the document review, focusing on the rating elements of (1) to (3) above and checking the review comments etc. of all the reviewers who are reviewing the same research project, after conducting a comprehensive evaluation, please evaluate 4 grades according to the scoring distribution shown separately in the right column of the table below, and attach the overall score.

In addition, in setting up research projects to be reviewed at the second stage, we consider not only research projects whose ranking in the result of the first stage document review is near the number to be adopted, but also the research projects for which some reviewers have extremely low scores.

In addition, “The Status of Application and Acquisition of Research Grants” column and “Issues Relevant to Human Right Protection and Legal Compliance” column in the research proposal document is not taken into consideration in the overall score attached in the review. Please attach overall score based on the other each column etc. In the “Status of application and acceptance of research grant” column and “Issues Relevant to Human Right Protection and Legal Compliance” column, please check “iii Points to be Noted” for handling in review.

Scoring Classification	Assessment Criteria	Indication on Scoring Distribution
A	Among the research projects of the second stage of the review, should be adopted as top priority	Adjust according to the number of projects to be adopted
B	Among the research projects of the second stage of the review, should be positively adopted	
C	Among the research subjects of the second stage of the review, it may be adopted	
D	Those not entering A to C	
—	Cannot evaluate because it has interests	—

(Reference) FY2018 Adoption Rate for FY2018 Newly-adopted Research Projects

Scientific Research (B) (General)	25.6%
Scientific Research (C) (General)	27.9%
Early-Career Scientists	30.7%

## ii Other Evaluation Items

### Validity of Research Expenditure

From the viewpoint of effective and efficient allocation of the grants, considering the following points regarding the validity and necessity of research expenditures, if there is a problem in the content of research expenditures and it is desirable to lower the sufficiency rate, please add “x”. For research subjects to which multiple reviewers attach “x”, sufficiency rate will be set lower than the average sufficiency rate.

- Is the content of research expenditure reasonable and is expected to be used effectively?
- Is there anything that is truly necessary for carry out the research plan, such as purchasing expenditures of equipment?
- Will it be expected to be used effectively in carrying out the research plan if any expenditures of purchase for equipment, travel expenses, personnel cost / honoraria are calculated in excess of 90%?

(Reference) FY2018 Allocation Situation (Average Sufficiency Rate for Newly-adopted Research Projects)

Scientific Research (B) (General)	71.1%
Scientific Research (C) (General)	67.8%
Early-Career Scientists	64.2%

### iii Points to be Noted

#### (1) About handling “The Status of Application and Acquisition of Research Grants” column

The status of application and acquisition of other research projects is the reference in order to determine “whether research subjects can sufficiently carry out without unreasonable duplication and/or excessive concentration in the grant allocation or not”. Therefore, please do not consider the overall score to be attached in the review.

Furthermore, please make judgment in accordance with the following procedure in the judgment of unreasonable duplication etc. of research grants.

##### [First stage of Review]

In the first stage of the review, if there are research subjects that have clearly judged as “cannot sufficiently carry out with unreasonable duplication and/or excessive concentration in the grant allocation”, please fill the reason in the “reason leading to the judgment” column.

In addition, it is unnecessary to fill in if “this does not apply” or “there are no particular problems (including cases where it cannot be evaluated)”.

##### [Second stage of Review]

In the second stage of review, among the research projects are higher than the research projects to be reviewed at the second stage, regarding the research projects in which there are multiple reviewers who judged as “cannot sufficiently carry out with unreasonable duplication and/or excessive concentration in the grant allocation” and filled out the reason in the “reason leading to the judgment” column in the first stage of review, we will confirm again “whether research subjects can sufficiently carry out without unreasonable duplication and/or excessive concentration in the grant allocation or not”. Upon confirmation, if it is judged as sufficiently carry out without unreasonable duplication and/or excessive concentration in the grant allocation or cannot be judged, please attach “there are no particular problems (including cases where it cannot be judged)”. If there is clear problem, please attach “x”.

Furthermore, regardless of the evaluation of the academic value, the research projects to which all the reviewers attached “x” became un-adopted.

#### (2) About handling “Issues Relevant to Human Right Protection and Legal Compliance” column

Regarding to research project that require issues relevant to human right protection and legal compliance in the execution of the research proposal, necessary procedures and measures, such as obtaining approval from the ethics committee and others inside and outside the research institution, are conducted based on related laws and regulations before carrying out research plan. For this reason, it is not necessary to consider it as the evaluation item.

In addition, when thinking that it is necessary to point out to the research institution beforehand such as insufficient points for prescribed procedures / countermeasures etc. in carrying out the research, please fill in concretely the “reason leading to the judgment” column on the basis leading to that idea. When adopted, we will notify the institution to which the applicant belongs to carry out predetermined procedures / countermeasures etc., and even if it is not adopted, we will inform you that there were insufficient points for prescribed procedures / countermeasures etc. in the disclosure of the review result. In addition, it is unnecessary to fill in the “reason leading to the judgment” column if “this does not apply” or “there are no particular problems (including cases where it cannot be judged)”.