

## **Scientific Research (B/C) (Application Section “Generative Research Fields”) 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.

In this application section, “Comprehensive Review” is implemented in which all reviewers will conduct document review on all research projects and the same reviewers will have discussion about each project from a broad perspective at panel review.

Through this review method, by conducting a deep understanding and thorough discussion on research subjects, it is necessary to judge significance, originality and feasibility of the proposal, and conduct appropriate evaluation so that excellent research projects can be found out.

In addition, if there are a large number of applications, “preliminary screening” will be conducted in order to narrow down to the number of projects appropriate for conducting document review by all reviewers. In the preliminary screening and document review, a relative overall score is assigned to each research project in 4 grades, taking into account the following individual rating elements. In the panel review, discussions are conducted taking into consideration the raw points etc. of the overall score in the document review appropriately, and the adoption of research projects and the allocation of research expenditures are decided.

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.

Furthermore, in Scientific Research (B/C) (application section “Generative Research Fields”), please make a review in mind that important fields remain unestablished, fields generating made by rapid strides of technology, fields expected to be generated from cross-cutting research shall be applicable research project.

## 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?

#### (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?

#### (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?

### [Overall Score]

#### [Preliminary Screening]

With respect to each research project, focusing on the rating elements of (1) to (3) above, considering validity as Generative Research Field, after conducting a comprehensive evaluation, please evaluate 4 grades in the order of priority as the research projects to proceed with document review from the highest priority “4” according to the scoring distribution shown in the right column of the table below, and attach the overall score.

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

Scoring Classification	Scoring Distribution
4	Adjust according to the number of projects to be adopted
3	
2	
1	
Cannot evaluate because it has interests	—

#### [Document Review]

With respect to each research project, focusing on the rating elements of (1) to (3) above, considering validity as Generative Research Field, 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.

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 document 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	Scoring Distribution
S	Should be adopted as top priority	Adjust according to the number of projects to be adopted
A	Should be actively adopted	
B	It may be adopted	
C	Those not entering S ~ B	
—	Cannot evaluate because it has interests	—

**[Fill in the review comments by reviewers]**

In the Scientific Research (B/C) (application section “Generative Research Fields”), the document review and panel review are held by the same reviewer. The review comments on document review and name list of review committee will be given as review materials in order to deepen the discussion at the panel review. In the “Review comments by reviewers” column, please be sure to fill in the review comments by reviewers, focus on the pros and cons of the research projects.

**ii Other Evaluation Items**

**Validity of Research Expenditure**

From the viewpoint of effective and efficient distribution of the grants, please take the following points into consideration about the validity and necessity of research expenditure, and rate according to the following rating category. (The rating category other than “(blank)” when judging that it clearly falls under the description content of the assessment criteria.)

In addition, when evaluating “△” or “×”, please fill in the “reason leading to the judgment” column concretely the basis for the judgment.

- 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%?

Rating Category	Assessment Criteria (Please refer to margin “allocation situation” in rating)
(Blank)	If the average sufficiency rate is satisfied, the research can be carried out
○	Judging from the contents of the research plan, it is desirable to raise the sufficiency rate
△	Judging from the contents of the research plan, it is desirable to lower the sufficiency rate
×	There is a problem with the content of research expenditure

(Reference) FY2018 Allocation Situation (Average Sufficiency Rate for Newly-adopted Research Projects)  
 Scientific Research (B) (Generative Research Fields) 71.2%  
 Scientific Research (C) (Generative Research Fields) 68.3%

### iii Points to be Noted

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

Regarding the status of application and acquisition of other research projects, reference for the judgment of “whether research subjects can sufficiently carry out without unreasonable duplication and/or excessive concentration in the grant allocation or not” in the panel review. For this reason, please do not consider it in the document review.

#### (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 for document review.

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)”.