# Scientific Research (A) (Application Section "General") Assessment Criteria for Document Review

Grants-in-Aid for Scientific Research (KAKENHI) aim to dramatically develop all academic research, from basics to applications, throughout all research fields. In the review for allotment of research funds, each reviewer is required to make appropriate and fair judgment as to whether the submitted research proposals could contribute greatly to this end.

The Medium-sized Section will be applied for the review. The review method will be a Comprehensive Review in which all reviewers will first conduct document review on all research proposals, then the same reviewers will conduct discussions from a broad perspective on each research proposal in the panel review.

With deep understanding and extensive discussions on the research proposals under this review method, you are asked to determine the originality, creativity, and feasibility of the proposal from multifaceted perspectives and conduct appropriate assessments so as to discover excellent research projects.

In the document review, each research proposal will be assigned a relative overall score on a scale of 1 to 4 based on the individual rating elements related to "A. Rating elements concerning the content of the research plan" as described below. In addition, each research proposal will receive an absolute evaluation under "B. Rating element for the internationality of the research project." In the panel review, reviewers will conduct discussions, taking into consideration, as appropriate, the raw scores, etc. of the overall scores of the document review, and determine the adoption of research proposals and allocation of research funds.

In conducting the review, you do not necessarily have to give high overall scores to research proposals that marked high scores in all of the individual elements. You are asked to conduct appropriate assessments so as to discover significant research projects over a wide range and enable the progress of scientific research while giving consideration to the diversity of research such as characteristics of the fields.

Note that you must not conduct reviews of research proposals submitted by any research team consisting of researchers whom you have vested interests.

#### i Assessment Criteria

#### [Rating Elements]

#### A. Rating elements concerning the content of the research plan

#### (1) Scientific Importance of the Research Proposal

- Is the research proposal an important research project that should be promoted from a scientific perspective?
- Is the "key research question or issue" comprising the core of the research project clearly stated? Is it original and creative?
- Does the research proposal clearly show the circumstances leading to this research proposal, global research trends, and the positioning of this research within the relevant domain or field?
- By conducting the proposed research project, could we expect positive effects on broader fields, science and technology, the society or other areas?

#### (2) Validity of the Research Method

- Is the research method, etc. specific and appropriate to achieve the research objective? Also, are the research expenditures consistent with the research plan?
- Is the state of preparation appropriate to achieve the research objective?

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

- Judging from the research activities, etc. conducted over the years, does the applicant possess sufficient ability to carry out the research plan?
- Has the applicant secured a research environment that he/she needs to conduct the research plan including research facilities, equipment, and research materials?

#### B. Rating element for the internationality of the research project

Can the implementation of this research project be expected to demonstrate its internationality (e.g., to lead future research projects worldwide, to contribute to the development of research projects worldwide through collaboration, or to create high value as research unique to Japan)?

#### [Overall Scores]

To determine the adoption of each research proposal, make a comprehensive judgment focusing on the rating elements "A. Rating elements concerning the content of the research plan" (1) through (3) above, and assign an overall score on a scale of 1 to 4 in accordance with the scoring distribution shown in the right column in the table below. (This may not be the case if you are asked to review a small number of research proposals.) If you have "vested interests" in a research proposal, enter the reason in the "Reason for Vested Interests" column.

Also note that "The Status of Application and Acquisition of Research Grants" and "Issues Relevant to Human Rights Protection and Legal Compliance" columns in the research proposal document are not to be considered for the overall score given in the document review. As such, you should assign the overall score based on each of the other columns, etc. Please check the section iii. Points to be Noted on how to handle "The Status of Application and Acquisition of Research Grants" and "Issues Relevant to Human Rights Protection and Legal Compliance" columns in the review process.

Scoring Classification	Assessment Criteria	Rough Indication of Scoring Distribution
S	Should be adopted with highest priority	10%
A	Should be adopted with priority	10%
В	Worth considering for adoption	10%
C	None of the above (S through B)	70%
-	Cannot evaluate this proposal due to vested interests	-

In addition, please indicate your absolute evaluation on a scale of 1 to 4 for "B. Rating element for the internationality of the research project" as described above.

Scoring Classification	Assessment Criteria
4	Highly promising
3	Promising
2	Mostly promising
1	Not very promising

### [Entering the Review Comments]

Although document review and panel review will be conducted by the same reviewers for Grant-in-Aid for Scientific Research (A)(General), the review comments given in document review will be presented along with the name of the reviewer etc. as review materials in order to deepen the discussions at the panel review.

In the "Review Comments" column, you must enter your review comments for every research proposal focusing on the strengths and weaknesses of each research proposal.

#### ii Other Evaluation Items

#### Validity of Research Expenditures

In an aim to distribute KAKENHI grant effectively and efficiently, consider the following points in terms of the validity and necessity of research expenditure and assign a rating according to the following rating categories. (Rating categories other than (Blank) should be assigned only if you can determine that the proposed research expenditure clearly falls under the content of each such assessment criteria.)

Note that if you are assigning  $\Delta$  or  $\times$ , please describe the specific reasons for such judgment in the "Reason leading to the judgment" column.

- -Is the content of research expenditure reasonable and can we expect that the research expenditure will be used effectively?
- -Are items genuinely necessary for the implementation of the research plan properly budgeted, such as costs for purchasing equipment?
- -If any of the expenditure categories (equipment costs, travel expenses, or personnel cost/honoraria) exceeds 90% of the total expenditure, can we expect that the research expenditure will be used effectively for the implementation of the research plan?

Rating Category	Assessment Criteria	
(Blank)	This research can be implemented with an average sufficiency rate	
0	Judging from the content of the research plan, it is desirable to increase the sufficiency rate	
Δ	Judging from the content of the research plan, it is desirable to decrease the sufficiency rate	
×	The content of research expenditure is questionable	

#### iii Points to be Noted

## (1) Handling of "The Status of Application and Acquisition of Research Grants" column

The status of applications of other research proposals and acquisition of other research grants are to be referenced in the panel review to judge "whether or not the research project can be fully implemented without unreasonable duplication and/or excessive concentration in the grant allocation." Therefore, do not consider this information in the overall scores to be assigned in the review.

In the document review, if you find that a research proposal obviously "falls under unreasonable duplication and/or excessive concentration in the grant allocation and cannot be carried out sufficiently," please state the reason in the "Reason leading to the judgment" column.

Note that this column may be left blank in case "This item is not applicable" or if you find "No particular problem (including cases where you cannot make a judgment)."

# (2) Handling of "Issues Relevant to Human Rights Protection and Legal Compliance" column

Research proposals that require the protection of human rights and legal compliances in implementing the research plan must be conducted after following necessary procedures and taking necessary measures such as obtaining the approval of the ethics committee, etc. inside and outside the research institution based on relevant laws and regulations. For this reason, you do not need to consider them as evaluation items for the review.

If you find it necessary to inform the research institution in advance, for example, of any inadequacy in the prescribed procedures or measures, etc. in implementing the research, please describe the specific reasons for such judgment in the "Reason leading to the judgment" column. If the research proposal is adopted, JSPS will notify the applicant's affiliated research institution to carry out such prescribed procedures or measures, etc. Even if the research proposal is not adopted, JSPS will disclose in the review results that there was inadequacy in the prescribed procedures or measures, etc.

Note also that the "Reason leading to the judgment" column may be left blank in case "This item is not applicable" or if you find "No particular problem (including cases that cannot be judged)."