Challenging Research (Pioneering/Exploratory)
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.

“Challenging Research (Pioneering/Exploratory)” supports research plan aiming at radically transforming the existing research framework and/or changing the research direction and has a potential of rapid development based on innovative ideas. ((Exploratory) covers research projects that have a strong exploratory nature, or are in their beginning stages). It has a distinctly different character from the research categories such as “Scientific Research” and “Early-Career Scientists”.

“Challenging Research” is targeted for research projects with a potential of radically transforming the existing research framework and/or changing the research direction such as “discovery and pursuit of new principles”, “revision of research concepts and framework” and “radically transforming ideas and/or introduction of innovative methodologies, etc. that bring breakthroughs in research”, so please conduct review that emphasizes the significance of the research as a “Challenging Research”.
In addition, from the viewpoint of confirming the feasibility of such “Challenging Research”, please confirm the applicant's research ability to conduct the research such as checking the past research history, the content of the research activities. However, if there is a description about the research achievements, please avoid judging only by their amount.

In the review of “Challenging Research”, in addition to applying the Medium-sized Section as the Review Section, especially the area considered to be highly academically requested is set with a time limit as the “Generative Research Fields Review Division” separately from the Review Section table if necessary. Also, “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. Thorough deep understanding and discussion for research projects, please make appropriate evaluation so that you can find research projects that are worthy of being truly challenging.

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 individual rating elements such as validity as Challenging Research, etc.

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. At this time, we allocate the amount of proposed budget at utmost respect so that applicants can fully work on “Challenging Research”.

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

i Assessment Criteria

[Rating Elements]

(1) Validity as Challenging Research

・Is it the research project with a potential that radically transforming the existing research framework and/or changing the research direction? Also, in (Exploratory) if the research proposal are highly exploratory and/or are in their budding stages, does it have the potential for "Challenging Research"?

・Can we expect the future potential for wider academic, scientific and technological, industrial and cultural impact and contribution to society in a broader sense by conducting this research project?

*** In case "Pioneering",**

・Is it clear that the background and process leading to conception, and is it reasonable the research initiative obtained by it? Also, is it a highly challenging issue setting?

*** In case "Exploratory",**

・Is it clear that the background and process leading to conception, and is it reasonable the research initiative obtained by it? Also, is it a challenging issue setting?

(2) Validity of Research Objective and Research Plan

・Is the research purpose clear and is the research plan appropriate in order to achieve its research objective?

(3) Appropriateness of Ability to Conduct Research

*** In case "Pioneering",**

・From the hitherto research activities and results, can you judge that applicant has a high ability to conduct the research plan?

・Are preparation conditions of the research environment such as the research facilities, equipment, research materials, etc. as a prerequisite for conducting the research plan appropriate?

*** In case "Exploratory",**

・From the hitherto research activities and results, can you judge that applicant has an ability to conduct the research plan?

[Overall Score]

[Preliminary Screening]

With respect to the adoption of each research project, focusing on the rating elements of (1) to (3) above, considering the suitability as Challenging Research (for the research project in the Generative Research Fields Review Division, also considering whether the project matches the division concerned), 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.

Scoring Classification	Scoring Distribution
4	10%
3	10%
2	10%
1	70%
Cannot evaluate because it has interests	―

* Of the research projects with the scoring classification “4”, if there are research projects that you want to remain in the document review in particular, one of the projects can be selected as the “Priority review project”. Regarding the research project, we can proceed with the document review regardless of the score given by other reviewers.

[Document Review]

With respect to the adoption of each research project, focusing on the rating elements of (1) to (3) above, considering the suitability as Challenging Research (for the research project in the Generative Research Fields Review Division, also considering whether the project matches the division concerned), 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 column “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 Challenging Research, the document review and panel review are held by the same reviewer. The review comments by reviewers 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.

For this reason, <u>in the “Review comments by reviewers” column of document review, please be sure to fill in the review comments by reviewers, focus on the pros and cons as Challenging Research of the research projects.</u>

It is not necessary to attach review comments by reviewers in preliminary screening.

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 in document review, 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.)
Also, we will allocate the amount of proposed budget at utmost respect.
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
(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 lower the sufficiency rate
×	There is a problem with the content of research expenditure

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 in 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)”.