Purpose of the Research

The applicant shall indicate the general nature of the research and the specific purpose of the research and with the existing academic literature referred to where necessary. In particular, details shall be given clearly with a focus on the following points. [Refer to the rules concerning the screening and assessment for Grants-in-Aid for Scientific Research. (cf. Application Procedures for Grants-in-Aid for Scientific Research)]

- 1) Scientific background for the research (e.g., domestic and overseas trends related to the research and positioning of the research; how the applicant has reached the concept based on his or her achievements in earlier research work; and details of achievements of past research work where the purpose of this project is to attain a greater level of knowledge in a similar area)
- 2) What will be elucidated and to what extent will it be pursued during the research period

3) Scientific characteristics, originality and expected results and significance of the research in the area
Purpose of the Research

	Scientific Research B (Generative Research Fields) - 2
Down on of the Down old (continued)	
Purpose of the Research (continued)	
1	

Research Plan and Method

The applicant should provide details of the research plan and the methods for achieving the objectives of the research in a clear and specific manner. The plan should be divided into one for FY2014 and one for FY2015. The literature should be referred to as needed and main points focused on. The plan and methods should indicate achievements through a discussion from different angles, such as the action in the event that the research does not progress as originally planned. Where the research plan is being implemented by a group, indicate the specific roles of the Principal Investigator and Co-Investigator (*kenkyu-buntansha*) of the research team (using figures, tables and other visual aids). In case the research plan is being implemented together with Co-Investigators (*kenkyu-buntansha*), include the necessity and rationality of the research group, and the relationship to the purpose of the research from the scientific viewpoint.

In addition, in order to clearly indicate the general view of the research team, state the roles of Co-Investigators (renkei-kenkyusha) and Research Collaborators [overseas co-researchers, company-employed researchers not eligible to apply for KAKENHI, other persons offering research support, such as technical experts and intellectual property specialists, graduate students and others (the names and the number of members may be stated)] as needed.

Moreover, if the research environment changes significantly halfway through the research period, due to personnel changes, retirements, etc., the applicant should also describe the way how the location of the implementation of the research is secured, research implementation methods, etc.
Research Plan and Method

	Scientific	Research	В	(Generative	Research	Fields) - 4
Research Plan and Method (continued)						
(commutation)						

	Scientific	Research	В (Generative	Research	Fields) - 5
Research Plan and Method (continued)						
(2011)						

State of Preparations for the Research Plan and Methods to Disseminate the Research Results to
Society and Citizens
The following points should be highlighted and stated in a clear and specific manner: 1) The current state of research environment, such as research facilities, equipment and materials that are to be used in conducting the research
2) The state of preparation for starting the research, such as coordination and contact with research members, in case there are Co-Investigator(s)
(kenkyu-buntansha) (This should also be stated if appropriate in the case that there are Co-Investigators (renkei-kenkyusha) and/or Research
Collaborators.) 3) How the research achievements are disseminated to society and members of the public
(6)-10-1 (10)-10-10-10-10-10-10-10-10-10-10-10-10-10-
Connection between the Research Plan and the Research Project which received a Research Progress
Assessment for If the Principal Investigator of the current application received a research progress assessment in FY2012 or in FY2013, as a Principal for the Principal Investigator of the current application received a research progress assessment in FY2012 or in FY2013, as a Principal for the Principal Investigator of the current application received a research progress assessment in FY2012 or in FY2013, as a Principal for the Principal Investigator of the current application received a research progress assessment in FY2012 or in FY2013, as a Principal for the
Investigator of "Specially Promoted Research", "Scientific Research (S)" or "Grant-in-Aid for Young Scientists (S)", he or she should describe
it in this section.
• The researcher should describe the connection between the research plan and the research project which received a research progress assessment
in this section (e.g. what kind of connection is there, how the researcher will advance the research which received a research progress assessment in
concrete terms, etc.).

Recent Research Activities

The applicant should fill in the important **research papers/articles, books, industrial property rights and invited lectures** the Principal Investigator and Co-Investigator(s) (*kenkyū-buntansha*) presented in the last five years relating to the research in the sequence of publication from new to old with serial numbers assigned. Lines should be drawn between groups of research papers and others published in the same calendar year to separate them. (<u>The lines can be moved.</u>) Forthcoming research papers/articles in academic journals may be included, only if they have been accepted for publication.

Moreover, if the need arises, it is also possible to fill in the recent research activities of the Co-Investigators (*renkei-kenkyusha*). If the recent research activities are filled in, double lines should be drawn to distinguish between them. (<u>The double lines can be moved.</u>) They should be filled in per researcher in the sequence of publication from new to old. (It is not necessary to draw lines between every year.)

Year of Publication	Title of Published Research Papers/Articles, Books, and Other Publications (For published research papers/articles, state the title, the names of authors, name of the journal, referee reading (or not), volume, page numbers of the initial and final pages and the year of publication.)
Names of the Principal	(The abovementioned sequence of such items is not compulsory as long as all of the items are included. <u>If there</u>
Investigator and Co-Investigator(s)	are many authors, only include several authors omitting others (if any authors' names are omitted, state the number of the authors and the order on the author list for the related researchers). The Principal Investigator
(kenkyu-buntansha)	should be marked with a double underline, Co-Investigator(s) (kenkyu-buntansha) with a single underline, and
(nemeya ountainsma)	the Co-Investigator(s) (renkei-kenkyusha) with a dotted underline.)
2013 onward	
2012	

Pacant Research Activiti	as (continued)	Scientific Research	B (Generative Research	ricius) - o
Recent Research Activitie 2011	es (continueu)			
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2010				

		Scientific Research D (Generative Research Fields) -
Recent Research Activit	ies (continued)	
2000	(00111111111111111111111111111111111111	
Recent Research Activit 2009		

Research Funding Received and Achievements
State the achievements of funded research that is being effectively used for planning the current research from the grants that the Principal Investigator/Co-Investigator (kenkyu-buntansha) has received (including KAKENHI, research funding provided by his or her research
institution, research funding paid by any ministry/office, local public organization, research promotion corporation, private corporation and any
current research funding). Classify the grants into KAKENHI and others. The following should be taken into consideration:
1) For each research funding, state the research category (name of the system for research funding other than KAKENHI), period (fiscal year),
title of the research project, whether the applicant is the Principal Investigator or Co-Investigator (kenkyu-buntansha), eligible costs (direct
costs) of the research. Also give a clear statement of the research achievements and interim and after-the-fact assessment results (only to be
made by the funding organizations). (If there are research progress assessment results for KAKENHI in FY2012 or in FY2013, they should
be described in the section "Connection between the Research Plan and the Research Project which received a Research Progress
Assessment" on Scientific Research B (Generative Research Fields) -6.) 2) The applicant should describe them and make a distinction by drawing a line between KAKENHI and other research funding
2) The applicant should describe them and make a distinction by drawing a line between KAKENHI and other research funding.

Scientific Research B (Generative Research Fields) - 1
Protection of Human Rights and Compliance with Laws and Regulations (cf. Application Procedures fo
Grants-in-Aid for Scientific Research)
Describe the measures and actions that you will take if your research involves compliance with the related laws and regulations (e.g. research requiring the consent and the cooperation of the other party, research requiring consideration for the handling of personal information and
research requiring efforts regarding bioethics and safety measures when implementing the research plan). This applies to surveys, research,
experiments which require an approval procedure in an ethics committee inside and outside the research institution, such as for example questionnaire surveys and interview surveys in which personal information is involved, the use of provided samples, analysis study of the
\ human genome, recombinant DNA experiments, experiments on animals, etc. Please indicate where this is not applicable.
Rationality and Justification of the Research Costs
The applicant should explain the rationality, necessity and grounds for calculating the research cost to be stated on the following page and thereafter, based on the scale and organization of the research given in <i>Research Plan and Method</i> . Indicate the necessity of the cost (e.g. breakdown) if, in any fiscal year of the research project, any of the costs (equipment, travel expenses, and personnel expenditure and
remuneration) exceeds 90% of the entire research funding, or if there is any other predominant cost.

Scientific Research B (Generative Research Fields) - 12 (Unit: thousands of yen)

Statement of Costs for Equipment			Statement of Costs for Consumables		
See Procedures for Preparing and Entering a Proposal for Grant-in-Aid for			See Procedures for Preparing and Entering a Proposal for Grant-in-Aid for "Scientific Research (B) (Generative)		
FY	Item and Specifications (unit price × qty) (institute where equipment is installed)	Amount	Research Fields)" Item	Amount	
2014	,				

(Unit: thousands of yen)

FY	B) (Generative Research Fields)") Domestic Travel Expenses		Overseas Travel Expenses		Personnel Expendi Remuneration		Miscellaneous	
01.1	Item	Amount	Item	Amount	Item	Amount	Item	Amour
014								
						1 1		1

Application for Research Funding, Current State of Funding and Effort

Since examiners will refer to the information stated here in the second screening (collegial screening) when they discuss whether a research project will be able to be sufficiently implemented without causing unreasonable duplication or excessive concentration of research funding. It is necessary that the applicant correctly states the budget for the proposed research project that he or she receives and uses. The applicant should take into consideration the following points and enter (1) the research funding applied for, (2) the research funding to be provided and (3) other activities at the time of application by the Principal Investigator. Distinguish between sources of research funding by drawing a line, if there is more than one. For the exact method for filling in the necessary data, the applicant should verify the Procedures for Preparing and Entering a Proposal for Grant-in-Aid for "Scientific Research (B) (Generative Research Fields)".

- 1) Fill in Effort with a percentage of time allocation (%) necessary for the implementation of the research where the entire yearly working time is set at 100%.
- 2) State the title of the research project at the beginning of Research funding applied for.
- 3) In the case of a KAKENHI for "Scientific Research on Innovative Areas (Research in a proposed research area)", the applicant should state whether it is "planned research" or "invited research".

 Include research funding to be competitively provided by the research institution to which the researcher belongs

ig to be competitively provided t	by the research	i ilistitution to w	men me r	esearcher belongs.		
ling Applied for						
Title of the research project (name of the Principal Investigator)	Role (Principal Investigator or Co-Investigator (kenkyu-buntan sha))	Budget for FY2014 (throughout the period) (Unit: Thousands of yen)	Effort (%)	Differences in details of research and reasons for additional application for a grant for the current research project (In the case of a Principal Investigator of a KAKENHI, the amount to receive for the whole research period)		
	Principal Investigator					
		()		(total budget in thousands of yen)		
	Title of the research project (name of the Principal	Title of the research project (name of the Principal Investigator) Role (Principal Investigator or Co-Investigator or (kenkyu-buntan sha)) Principal	Title of the research project (name of the Principal Investigator) Role (Principal Investigator or Co-Investigator or (kenkyu-buntan sha)) Role (Principal Investigator or Co-Investigator or (kenkyu-buntan sha)) Principal	Title of the research project (name of the Principal Investigator) Role (Principal Investigator or (Co-Investigator or (kenkyu-buntan sha)) Principal		

To be filled in and attached by the Principal Investigator							
			h B (Generative Research Fields) - 16				
Application for Resea	t (continued)						
(2) Research Funding Funding system and name of the research funding (research period and name of the funding organization)	Title of the research project (name of the Principal Investigator)	Role (Principal Investigator or Co-Investiga tor (kenkyu-bun tansha))	Budget for FY2014 (throughout the period) (Unit: Thousands of yen)	Effort (%)	Differences in details of research and reasons for additional application for a grant for the current research project (In the case of a Principal Investigator of a KAKENHI, the amount to receive for the whole research period)		
	earch and educational activities that esearch activities being applied for	100					
	the effort in (1), (2) and (3) above)	(%)					