S-1-1 (2) Project Description File (Japanese version) (items in the attached file)

Purpose	of	the	Research
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The applicant should indicate the general idea of the research and the specific purpose of the research clearly and specifically with the literature referred to as needed. The following points should be highlighted. [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) What will be elucidated and to what extent will it be pursued during the research period
- 2) The scientific features, originality and expected results and significance of the research (project) in the area
- 3) Positioning of the research (project) in related domestic and overseas research
- 4) Differences from the present research project, if any research funding other than KAKENHI is continuously received for another continued research project in FY2014 (research funding by any ministry/office, local public organization, research funding corporation, private corporation or other bodies)
- 5) The specific purpose of the part the Co-Investigator (*kenkyū-buntansha*) is in charge of (in case the applicant entered items of work allotted in the section "Roles" of the Application Information (to be entered in the Website))

Necessity of the Research
State the necessity and positioning of research in the light of the following: 1) State of progress of the research area as background of the research [the current state and trends in domestic and overseas research, contribution of the applicant (international rating of research achievements)] 2) The innovative character of the research and how it was inspired 3) Expected research achievements, scientific significance and impact
4) Reasons why an application is made for Specially Promoted Research and urgency of the research

achievements of the applicant have been quoted The applicant should dearn be concisely how his her earlier research achievements or respectively being ranked and assessed in the main research papers'articles of other researches are such achievements of the applicant have been quoted (mentioning the name of the author, the title and other matters of each research paper'article), and how they are being used.							which	earlier	research
	The applicant research pape	t should describe ers/articles of oth	e concisely how her researchers i	his/her earlier in which the ear	research achieve	ments are respectively	applicant have		
	C Haine of the ac	allioi, the true and	u omei maneis (of each rescure.	paper/article/, a.	id now they are o	allig useu.		

Research Plan and Methods
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 existing academic literature should be referred to as needed and the plan and methods should indicate results through a discussion from multiple aspects, 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-Investigators (kenkyu-buntansha) (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 project members, and the connection to the purpose of the research from the scientific viewpoint.
Moreover, in order to clearly indicate the general view of the research team, state the roles of Co-Investigators (<i>renkei-kenkyusha</i>) 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
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.

State of Preparations for the Research Project and Methods to Disseminate the
Research Results to Society and Citizens
The following points should be highlighted and stated in a clear, specific manner:
1) The current state of research environment, such as research facilities, equipment and materials that are used for the implementation of the research
2) The state of preparation for starting the research, such as coordination and contact with Co-Investigators (<i>kenkyu-buntansha</i>), if
applicable (This should also be stated as appropriate in the event there are Co-Investigators (renkei-kenkyusha) and/or Research
Collaborators.)
3) The methods and other ways of disseminating the research results of the current research to society and citizens

R	esearch 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 (<i>kenkyu-buntansha</i>) 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 other grants. The following should be taken into account: 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 (<i>kenkyu-buntansha</i>), 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, the applicant should describe them in the section "Connection between the Research Plan and the Research Project which received a Research Progress Assessment" in Specially Promoted Research 2-7. 2) Distinguish between KAKENHI and other research funding by drawing a line.

 a Research Progress Assessment In this section the Principal Investigator of the current application should describe it if he or she received a research progress assessment as a Principal Investigator of "Specially Promoted Research" or "Scientific Research (S)", "Grant-in-Aid for Young Scientists (S)" in FY2012 or in FY2013. In this section the applicant should describe the connection between the research plan and the research project which received a research progress assessment (answering questions like what connection is there, how to develop the research which received a research progress
Principal Investigator of "Specially Promoted Research" or "Scientific Research (S)", "Grant-in-Aid for Young Scientists (S)" in FY2012 or in FY2013. • In this section the applicant should describe the connection between the research plan and the research project which received a research
• In this section the applicant should describe the connection between the research plan and the research project which received a research
assessment specifically, and other matters).

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The applicant should fill in this section only if he or she wishes to reconstruct her/his research plan as an application for the fiscal year before the final fiscal year of a research plan. (cf. Application Procedures for Grants-in-Aid for Scientific Research) In other cases it is not necessary to fill it in.

In this section the applicant should describe the research achievements, such as new knowledge and other matters, attained in the original research plan of the continued research project he or she is conducting as a Principal Investigator and of which FY2014 is the final fiscal year. He or she should describe the reasons (state of the development of the research, justification of the budget, etc.) why he or she is applying for the current research and why he or she is reconstructing his/her original research, based on the development of the original research. (Moreover, research achievements of the continued research project that are described in this section should not be described in the section "Research Funding Received and Achievements" in Specially Promoted Research 2-6.)

Research	Screening	Project	Title of the Research Project	Research Period
Category	Division	Number	1100 01 000 11000000 110000	110000011101100
Category	Division	Nullibel		E
				From to
				FY2014
Initial Resear	rch Plan and	Research Achieve	ements	
Reasons for A	Applying			

Protection of Human Rights and Compliance with Laws and Regulations (cf. Application Procedures for 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.

Research Facilities and Equipment Currently Used

Research Facilitie	S (See the procedures for preparing	and enterin	g the proposal for grant	in-aid for Speci	ally Promoted Re	search.)
Research Institution	Name of Facilities (A	Area)	Exclusive or Joint Use		Remarks	S
E C	Al I I Al (4)			
	ently Used (major existing preparing and entering the proposal f			ted Research.)		
Research Institution	Name of Equipment		cations (type and erformance)	Exclusive or Joint Use	Year of Installation	Remarks

Rationality and Justification of the Research Costs

In this section, the applicant should fill in the budget for each item of expense, based on the scale and the organization of the research and other matters mentioned in the section "Research Plan and Methods" in Specially Promoted Research 2-4, and should then describe the rationality, justification and grounds for the total amount. A deliberation on the optimum scale and budget of the research will be conducted in the screening panel. Therefore, the applicant should specifically enter important items and expensive items (for example, in the case of expensive equipment, reasons why its performance is necessary for the research and the reasons why the currently used equipment cannot be used (whether jointly or not), in the case of expensive consumables, the way how the money is actually used and the adequacy of the quantity and price, in the case of personnel expenditure and remuneration, the adequacy of the staff and costs, etc.). Moreover, if the total amount of the research budget applied for exceeds 500 million yen, the applicant should fill in the rationality and justification in the section "Reason why the total budget applied for exceeds 500 million yen" in Specially Promoted Research 2-13.

Moreover, if, in any fiscal year of the research project, any item of expense (equipment, travel expenses, and personnel expenditure and remuneration) exceeds 90% of the entire research budget, or if there is any other predominant item of expense in "Miscellaneous", the applicant should provide a justification for the cost (for example by providing a breakdown).

Statement of Costs for Equipment

If the applicant is purchasing many books and materials, he or she should enter details, such as "books relating to politics during the Middle Ages in the West", in such wording that the contents of the books and materials becomes clear. For machines and tools, not only the type but also the breakdown of each set should be stated. If the applicant needs equipment in the last fiscal year, he or she should also fill in the reason in the section for the last fiscal year. In the section "Fixed Price / Estimation", the applicant should fill in concisely the fixed price or the estimated price, in a way that clarifies the ground for the amount, such as for example by mentioning the percentage proportion of the fixed price to the estimation. Moreover, in order to facilitate deliberations on the rationality of the research funding, the applicant should fill in the estimated price, except in those cases where it is unavoidable not to do so.

estimated price, except in those cases where it is unavoidable not to do so. (Unit: Thousands of yen) Year and Month Researcher as the main user Preferred Unit when Amount Fixed Price Item and Specifications Qty and institution where the Order of Purchase Price (¥) Estimation items will be used Purchase Planned FY2014 Month: Total Rationality, Justification and Other Matters FY2015 Month: Total Rationality, Justification and Other Matters

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Year and Month when Purchase is Planned	Preferred Order of Purchase	Item and Specifications	Qty	Unit Price	Amount (¥)	Fixed Price / Estimation	Researcher as the main user and institution where the items will be used
FY2016 Month:							
		Total					
Rationality	y, Justification	n and Other Matters					
FY2017							
Month:							
		Total					
Kauonamy	, Justification	n and Other Matters					
FY2018 Month:							
		Total					
Rationality	y, Justification	n and Other Matters					

							(Unit: Thousa	ilius of yell
Year	Consuma	ables	Travel Ex	penses	Personnel Expenditure and Remuneration		Miscellaneous	
Fiscal Year	Item	Amount	Item	Amount	Item	Amount	Item	Amount
			(Domestic)					
FY2014			(Overseas)					
	Total							
Ratic	nality, Justifica	tion and Ot	her Matters					
				I				
			(Domestic)					
			(Domestic)					
			(Domestic)					
)15								
Y2015			(Domestic)					
FY2015								
FY2015								
FY2015								
FY2015	Total							
	Total onality, Justifica	tion and Ot	(Overseas)					
		tion and Ot	(Overseas)					
		tion and Ot	(Overseas)					
		tion and Ot	(Overseas)					
		tion and Ot	(Overseas)					
		tion and Ot	(Overseas)					

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Fiscal Year	Consumables		Travel Expenses		Personnel Expenditure a	nd Remuneration	Miscellaneous	
Fiscal	Item	Amount	Item	Amount	Item	Amount	Item	Amount
			(Domestic)					
FY2016								
FY			(Overseas)					
	Total							
Ratio	nality, Justificati	on and Ot	her Matters	.L	L	L		
		I						
			(Domestic)					
FY2017								
FY			(Overseas)					
	Total							
Ratio	nality, Justificati	on and Ot	her Matters					
				ı	I	,		
FY2018			(Domestic)					
FY2			(Overseas)					
	Total							
Ratio	onality, Justificati	on and Ot	her Matters	L	L			

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In this section the applicant should explain specifically the reason why he or she cannot comply with the 500 million yen limit the rationality and justification for exceeding 500 million yen, only if the total amount of the research budget applied for exceeding 500 million yen, which is the guideline for the upper limit of the application.	

Name of the	Specially Promoted Research 2 – 1 4 – ()
Researcher	

Application for Research Funding, the Current State of Funding and Effort

Since this section is the part that will be used for reference during the screening process when judging whether the 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 and the Co-Investigator(s) (kenkyū-buntansha). 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 "Specially Promoted Research."

- 1. In the section "Effort" the applicant should fill in a percentage of time allocation (%) necessary for the implementation of the research if the entire yearly working time is set at 100%.
- 2. In the beginning of the section "Research Funding Applied For", the applicant should enter the research project he or she is currently applying for.
- 3. In the case of a grant-in-aid for scientific research for "Scientific Research on Innovative Areas (Research in a proposed research area)", the applicant should state whether it is "planned research" or "invited research".
- 4. The applicant should include research funding to be competitively provided by the research institution to which he or she belongs.
- 5. In the section "Connection between the Research Project Currently Applied for and the Original Research Project", the applicant should state the reasons for I, II and III specifically and clearly.
- 6. If the applicant is participating in project research conducted in line with a specific purpose (mission) of the research institution to which he or she belongs, he or she should also enter the research funding that is delivered.

Moreover, if the research funding that is delivered to each individual is not clear, the applicant should make a statement to this effect in the section "I. Differences in the Content of the Research".

(1) Research Funding Applied for Connection between the Research Project Currently Applied for Budget for FY Funding System / Name of Title of Proposed and the Original Research Project Roles I. Differences in the Content of the Research Effort Project (Name of the the Research Funding (throughout the PI/ II. Reason(s) for the Application for the Current Research period) (Unit: Principal (Research Period / Name (%) Co-I(s)) Thousands of Project in Addition to the Original Research Project of the Funding Institution) Investigator) yen) (In the case of a Principal Investigator of a KAKENHI, the amount to receive for the whole research Research Project Currently Applied For "Specially Promoted Research' (2014-20__) () (total budget in thousands of ven) T (total budget in thousands of yen) Π () (total budget in thousands of yen) Π)

				te of F	Funding and Effort (Continued)
(2) Research Fun	nding to be Pr	ovide	<u>d</u>		
	Project (Name of the Principal	Roles	Budget for FY 2014(throughout the period) (Unit: Thousands of yen)	Effort (%)	Connection between the Research Project Currently Applied for and the Original Research Project I. Differences in the Content of the Research II. Reason(s) for the Application for the Current Research Project in Addition to the Original Research Project III. Reason(s) for Withdrawal from the Research Currently Implemented ("Scientific Research on Innovative Areas", "Scientific Research", "Challenging Exploratory Research", "Grant-in-Aid for Young Scientists") and Conducting of Research Currently Applied For
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(3) Other Activiti The applicant should e educational activities the aforesaid research activiti	enter the effort for a	s work	other than the		
Total (Total of the effort in (1), (2) and (3) above)				100 (%)	

Reason(s) why screening by an overseas researcher is not appropriate
As a general rule, the preparation of a written opinion of the screening panel by overseas researchers will be requested for all research projects of the category "Specially Promoted Research". However, if the applicant judges that it is not appropriate to request it (i.e. if he or she selected "Not appropriate" in the section "Appropriateness of screening by an overseas researcher" among the items of application information to be entered in the Website), he or she should enter the specific reasons for this. Moreover, a deliberation on the appropriateness of these reasons will be conducted in the Scientific Research Grant Committee.