

Filling out procedure for a research proposal (forms)

(CREST-Form 1)

Research Proposal of CREST

Proposed Research Area		
Research Subject (in approximately 20 characters in English)		
Name of Research Director		
Institute ,Section, Official title to which applicant belongs		
Researcher No.	(Please enter the Researcher's Number of Grant-in-Aid for Scientific Research. Those without this number are to enter the 8-digit Researcher No. provided when registering researcher information on e-Rad [http://www.e-rad.go.jp/] (Japanese only now))	
Academic Records (University and higher education)	<p>Example:</p> <p>19xx: Graduated from Dept of ____ at University of ____</p> <p>19xx: Graduated from Dept of ____ at Graduate School of ____ with Master of ____. (Supervisor: Professor____)</p> <p>19xx: Graduated from Dept of ____ at Graduate School of ____ with Doctor of ____. (Name of Supervisor: Professor____)</p> <p>19 xx: Received a doctoral degree in ____ from University of ____</p>	
Research Experience (Major jobs and studies)	<p>Example:</p> <p>19xx – 19xx: Research assistant at Dept of ____ at University of ____. Researched _____ at Laboratory of Professor _____.</p> <p>19xx – 20xx: Researcher at ____ Laboratory, Engaged in research on ____ at a PhD Laboratory.</p> <p>20xx – 20xx: Professor of ____ at University of ____ , Researched ____</p>	
Research Period	Oct. 2009 – [mmm. yyyy] (for _ years)	
Total Research expenses	<input type="checkbox"/> Fund Class I <input type="checkbox"/> Fund Class II	Total Research expenses: ____ million yen (omit decimal places)

- **Research Area to apply for**
Please note that no application can be made for both CREST and PRESTO.
- **Researcher No.**
Applications are effectuated through e-Rad; however, before using e-Rad, it is necessary to register researcher information on e-Rad. Those without e-Rad login ID should contact their affiliated research institute coordinator or the e-Rad Helpdesk (see Application Points Appendix 3) without delay.
- **Research period**
The research period is five (5) years; however, the research may be ended at the end of the last fiscal year of the research period. (e.g., a research selected in 2009 to run for a period of five years may end on the last day of March 2015 for maximum period.)
- **Total Research expenses**
Check either Research Fund Class I or II, and fill in the right-hand side column with the definite total of research expenses. The total research expenses for Class I and II per research subject will be, respectively, about 150–250 million yen and 300–500 million yen. Do not check them if the total research expenses exceed 600 million yen.

(CREST-Form 2)

Outline of Research Subject

○ Outline of Research Subject

Summarize the main points of your “Research Concept” (CREST-Form 3) in approximately 400 characters in English.

● Proposal keywords

Select up to five (5) keywords that should help explain the Research Subject from the keyword list (Appendix 1) attached at the end of this volume. Write those keywords and their numbers. If no applicable keywords are available in the list, write your own keyword(s) with an asterisk (*) at the beginning.

Example: No. 001: Gene, No. 002: Genome, No. 010: Cytogenesis and differentiation, * XXX

● Research field

Select one (1) main research field and one (1) to three (3) sub-field(s) that best describe the fields into which the Research Subject is categorized from the research field list (Appendix 2) attached at the end of this volume. Write their numbers and research categories.

Example: Main research field: No. 0101: Genome

Sub-field(s): No.0102: Medicine and medical care, No. 0104: Brain sciences

● References

Provide the names of two (2) individuals who have good knowledge of your Research Subject (A non-Japanese person is acceptable). Write each person’s name, institution and contact information (phone/fax numbers and e-mail address). The evaluators (Research Supervisor and Research Area Advisors) might contact them in reference to the research proposal during the process of screening (preliminary evaluation). Providing this reference information is not mandatory.

Research Concept

- Write in a manner that is easy for evaluators to understand. To this end, add graphics and tables where necessary.
- Summarize the main points within approximately six A4-size pages.
- However, if the necessary or sufficient description does not fit within the required form or if there is any supplemental explanation, it can be simply described in "Other Special Information - Form 11".

1. Target and Aim of Research

Describe specifically:

- Target of research (goal of accomplishments that will be attained at the time of research termination), and
- Aim of research (key on the technology towards future technical innovation obtained using the above-mentioned accomplishments.)

2. Research background

Describe requests based on science and technology (if necessary to mention, include social requests and requests from economic and industrial interests), including the trends of the field and related fields concerned, if needed, to illustrate the importance and necessity of the Research Plan.

3. Research plans and implementation

Describe specifically the plans and details of your research.

- Show the outline of the time schedule to demonstrate your vision and plan specifically, how to attain "1. Target and aim of research", while indicating milestones of research toward "1. Target and aim of research" (criteria for evaluating the degree of achievement of research during research period.)
- Include probable challenges in accomplishing the objectives and goals and solutions.
- You may also write the description by research task.
- With respect to the intellectual property rights (including application, licensing, and maintenance) assumed under this research concept, describe your present situation in regard to the obtaining of the relevant intellectual property rights and policy for intellectual property right in the research setting.

4. Research infrastructure and preparation

Provide the following information in specific terms, which will be the basis for promoting your research concept.

- History and achievements of your own research efforts (and those of other research participants, if necessary)
- Other preliminary knowledge, data, etc. (if any)

5. Originality and novelty of the research and comparison to similar studies inside and outside Japan

Taking into account the situation and trends of research in relevant fields in Japan and other countries, present the positioning in the world, originality and novelty of your research concept and its advantages over others.

6. Future Prospect of Research

Describe development of science and technology, invention of new industry, philanthropy, etc., which are expected to be realized in the future, with the achievement of "Target and aim of research" of this research plan as a start, to the degree that the research applicant can assume.

(CREST-Form 4)

Research Framework 1

(Research framework at Research Director's Group)

- Fill in the research participants' names with the same institution as the Research Director.
- When research participants with the same organization as the Research Director participate in charge of clearly different contents from the research subject and outline of Research Director, their names might be written in Research framework 2 (CREST-Form 5.)

Research Director's Group

Example:

Research institution	Department of ____, Graduate School of ____ at University of ____ (Research location: University of ____)		
Participants from the research institution	Name	Title	Effort (Research Director only)
(Research Director →)	_____	Professor	__ %
	_____	Assistant Professor	-
	_____	Assistant	-

- In the “Effort” indicate the percentage of time required by a researcher to engage in the research when his/her total annual work hours is 100%. “Total work hours” refers to the overall substantial work time including education, medical care and other activities and not only the time spent for research activities. (According to the definition set by Council for Science and Technology Policy)
- Give sufficient consideration to the roles played by the members of your Research Team.
- Among the research participants, those researchers who have not decided to participate by the time of application may be indicated as “_____ (the number of) researchers.
- Add rows to the list of research participants if necessary.

Special information

- When special duties (managerial positions, such as the dean, chairperson of an academic society, etc.) take working hours (effort), fill in the situation and reason.

Research tasks and overview

- **Research tasks**
- **Overview**

Write concisely an overview of the research of which the Research Director's Group will be in charge and the necessity of that research.

Research concept ranking

Write the role which a Research Director's group plays in order to execute the Research Concept.

Research Framework 2

(Research framework at the Collaborative Research Group)

- Fill in the research participants' names for each collaborative research organization when researchers of institutions other than that of Research Director (collaborative research organizations) join.
- Although there is no maximum limit of the number of collaborative research organizations, compose a necessary and sufficient number of teams for execution of this research plan. It is possible to involve various institutions into the collaborative research group of a research team from industry, government, and academia.

Collaborative Research Group (1)

Example:

Collaborative Research institution	___ Laboratory at ___ Research Institute (Research location: ___ Research Institute)		
Participants from the research institution	Name	Title	Effort (Research Group Leader only)
(Research Group Leader →)	_____	Chief researcher	___ %
	_____	Researcher	—

Research tasks and overview

- **Research tasks**
- **Overview**

Write concisely the overview of the research of which this Collaborative Research Group will be in charge and the necessity of the research.

Research concept ranking and necessity

Write the indispensability and the role of Collaborative Research Group in order to execute the Research Concept.

Collaborative Research Group (2)

Example:

Collaborative Research institution	___ Laboratory at ___ Ltd. (Research location: ___ Ltd.)		
Participants from the research institution	Name	Title	Effort Research Group Leader only
(Research Group Leader →)	_____	Chief Researcher	___ %
	_____	Researcher	—

Research tasks and overview

- **Research tasks**
- **Overview**

Write concisely the overview of the research of which this Collaborative Research Group will be in charge and the necessity of the research.

Research concept ranking and necessity

Write the indispensability and the role of Collaborative Research Group in order to realize the Research Concept.

Research Expenses Plan

- Fill in your itemized research expenses plan and research expenses plan by institution for each year.
- At the interview selection, a more detailed research expenses plan should be submitted.
- Research expenses after adopted may be changed into the research period in according to the situation of the budget situation of this whole enterprise, management of Research Area, and Research Subjects evaluation etc.
- For research team composition, please propose an optimal group that would best represent the research concept of Research Director. If setting up collaborative research group, aspects such as the need for a collaborative research group, the appropriateness of the research expenses allocations to the collaborative research group, and cost performance will be important considerations.

Example:

Itemized research expenses plan (entire team)

	1 st Year (2009.10 -2010.3)	2 nd Year (2010.4 -2011.3)	3 rd Year (2011.4 -2012.3)	4 th Year (2012.4- 2013.3)	5 th Year (2013.4- 2014.3)	Final Year (2014.4- 2015.3)	Total (M Yen)
Equipment	30	40	40	10	10	5	135
Material /consumables	5	10	10	10	8	8	51
Travel	3	5	5	5	5	5	28
Employment, · Rewards (Number of researchers)	5 (3)	10 (3)	20 (5)	20 (5)	10 (3)	10 (3)	75
Misc.	2	10	10	10	7	7	46
Total (M Yen)	45	75	85	55	40	35	335

The items of expenditure and the purposes for spending of research expenses are as follows:
 Cost of equipment: Cost for purchasing equipment
 Materials / consumables expenses: Cost for purchasing materials and consumables
 Traveling expenses: Traveling expenses of Research Director or research participants
 Labor cost and rewards: Personnel expenses and rewards for researchers, technicians, research assistants, etc.
 Numbers of researchers: The number of researchers, technicians, and research assistants who are newly employed, and
 Miscellaneous: Costs other than the above (Costs of research presentations, equipment lease expense, books, freight costs, etc.)

Special information

- (1) The budget amount and ratio for each item of expenditure should be considered as optimal. However, when labor costs exceed 50% of the total research expenses, or when either of material / consumables expenses or traveling expenses exceeds 30% thereof, please describe the reason herein.
- (2) For a research proposal whose total research expenses through the research period exceed 600 million yen, describe "Needs for large research expenses" herein.

(Continued to next page)

(CREST-Form 7)

List of research papers and literary works (Research Director)

- **Major literature**

Author(s) (List all authors), title of the paper published, publication in which the paper was published, volume and page numbers and publication year

Select research papers or literary works which are considered to be the most important from those published in academic publications in recent years. List them on about one A4-size page in reverse-chronological order of the year of publication.

Place an asterisk (*) at the beginning of the title of the paper/books of which the applicant is the chief author.

Items to be written are as above, in a free order.

- **Bibliography**

Author(s) (List all authors), title of the paper published, publication in which the paper was published, volume and page numbers and publication year

List any relevant literary works that are necessary for understanding your research proposal.

(Place an asterisk (*) at the beginning of the title of the paper/books for which the applicant is the chief author (if any)).

Items to be written are as above, in a free order.

(CREST-Form 8)

List of research papers and literary works (Collaborative Research Group Leader)

Author(s) (List all authors), title of the paper published, publication in which the paper was published, volume and page numbers and publication year

Select research papers or literary works which are considered to be related to the present proposal and the most important from those published in academic publications in recent years by the collaborative research group leaders. List them on about one A4-size page for each research group leader in reverse-chronological order of the year of publication.

Items to be written are as above, in a free order.

(CREST-Form 9)

Patent list (Research Director)

- **Major patents**

Application number, inventor, title of invention, applicant and date of application

Select approximately important patents applied for by the Research Director in recent years (if any). List them on about one A4-size page.

Items to be written are as above, in a free order.

- **Research Director**

- **Collaborative Research Group Leader**

Grants from Other Aid Programs

List grants from the government Competitive Research Funds and any other research subsidies (including CREST and PRESTO) that the Research Director and/or Collaborative Research Group Leaders are currently receiving, applying for, or planning to apply for by program name, indicating the Research Subject title, research period, roles, amount of research expense, and effort, etc. Your entitlement to the JST funds might be cancelled on a later day even if you have been selected should your presentation fail to be accurate.

(Note)

- Please refer to “V. Notes for Application” about “Unreasonable Duplication and Excessive Concentration”.
- Notify JST at the Inquiry Counter indicated at the end of this volume if, at any time during the selection process of research proposals for this program, any information provided in this form has changed for any reason, including, for example, that other research funds being applied for and/or those planned for application have been granted.

Example:

Research Director (Applicant): Name: _____

Program ¹⁾	Research Subject Title (Director Name)	Research Period	Roles ²⁾ (Director/All ocation)	Research Expense ³⁾ (1) The whole period (2) FY 2009 (3) FY 2008	Effort (%) ⁴⁾
Grants-in-Aid for Scientific Research, Fundamental research (S)	XXXXXXXX	2008-- 2013	Director	(1) 100 M yen (2) 25 M yen (3) —	20
Special Coordination Fund for Promoting Science and Technology	XXXXXXXX (XXXXXXXX)	2007 --2010	Allocation	(1) 32 M yen (2) 8 M yen (3) 8 M yen	10
(Under Application) XX Fund by XX Foundation	XXXXXXXX	2008 --2010	Director	(1) 15 M yen (2) 5 M yen (3) —	5
5)					

1) List grants that the Applicant is currently receiving, or selected, in the descending order of research expenses (the whole period). Then list those the Applicant is currently applying for or planning to apply for (specify "under application" in the column "Fund name").

2) Describe Directorship or allocated work as "Role."

3) Describe the amount of fund the Applicant is receiving as "Research expenses."

4) Describe as "Effort" the percentage of the time required for the research concerned in the total work hours of a researcher, letting all annual working hours be 100% (not only time for research activities but education, medical services, etc. are included.) (According to the definition set by Council for Science and Technology Policy) Describe Effort for grants the Applicant is currently receiving assuming that a CREST proposal is selected.

5) Fluctuate writing spaces if needed.

Collaborative Research Group Leader: Name: _____

Program ¹⁾	Research Subject Title (Director Name)	Research Period	Roles ²⁾ (Director/Allocation)	Research Expense ³⁾ (1) The whole period (2) FY 2009 (3) FY 2008
Health and Labor Sciences Research Grants	XXXXXXXX	2008—2013	Director	(1) 45 M yen (2) 10 M yen (3) —

Collaborative Research Group Leader: Name: _____

Program ¹⁾	Research Subject Title (Director Name)	Research Period	Roles ²⁾ (Director/Allocation)	Research Expense ³⁾ (1) The whole period (2) FY 2009 (3) FY 2008
Grants-in-Aid for Scientific Research, Specific Area	XXXXXXXX (XXXXXXXX)	2007—2011	Allocation	(1) 25 M yen (2) 5 M yen (3) 5 M yen

Other Special Information

- Write freely the reason(s) why you have applied for the Basic Research Programs, any requests concerning your research, or any other concerns that you might have.
- Use this space to write the reason(s) if you request that your research take place overseas.
- Describe any outstanding record of awards here if necessary.
- Use this space to provide a simply description if there are any necessary or supplementary matters that you are unable to be described in the given pages of a “Research Concept – Form 3”.