

AI to Redesign Scientific Exploration (ARiSE) Program

Call for Proposals Application Guideline

Note: This Application Guideline has been prepared primarily as reference material to provide an overview of the ARiSE program and essential information for proposal preparation. It may not include a complete English translation of all sections of the original Japanese version. In the event of any discrepancy between this English version and the original Japanese version, the Japanese version will prevail.

Application Period
May 12 - June 30 (12:00 noon in Japan), 2026



Department of Research Project

May 2026

Overview of the Call for Research Application

(1) Call and Selection Schedule

The schedule for the submission and selection of research proposals is shown in the following table.

Call for proposals begins	<u>May 12th(Tue), 2026</u>
Holding of Explanatory Meetings	<u>May 15th(Fri) 10:30 - 12:00 a.m. (Japan time)</u>
Deadline for Expression of Interest (Optional)	<u>12:00(noon, Japan time) on Monday, May 25th</u>
Application deadline (Deadline for submitting applications through the e-Rad system)	<u>12:00 (noon, Japan time) on Tuesday, June 30th</u> <u>(No delays accepted)</u>
Document review period/ Selection Committee Meeting	Early July - Early August
Notification of document review results	Early August - Mid August
Interview Selection Meeting	Mid-August - Early September (*Scheduled to be conducted in online meetings)
Notification/ Announcement of selected Research Projects	Mid-September - Late September
Research starts	October or after

*A. The submission of an expression of interest in advance—comprising the proposer’s basic information, the proposed research field, and recommendations of qualified experts capable of evaluating the proposal—is requested to facilitate an effective and efficient review process.

Please note that the presence or absence of an expression of interest will not be used to determine the acceptability of a proposal. However, to ensure prompt and appropriate review, your cooperation in submitting an expression of interest is highly appreciated.

*B. The Program Officer (PO), with the support of advisors and other experts, will

determine the projects to be selected through document screening and interview evaluation, taking into account both AI and domain research perspectives. In addition, when using computational resources provided by RIKEN (e.g., the AI4S machine (tentative)) or those offered by universities, public institutions, or private companies, external experts or other qualified reviewers may verify in advance whether a reasonable and appropriate plan for the use of such computational resources has been presented.

*The underlined dates are final, but all others are expected dates. They are subject to change.

*The schedule of document review and the interview review will be announced on the following website as soon as determined:

<https://www.jst.go.jp/program/arise/koubo.html>

Project leaders of proposals selected for the interview will be notified by email within one week after the document review meeting and will be asked to prepare materials for the interview (the notification will be sent to the email address registered in e-Rad, so please ensure that it is set to receive emails). In addition, for applicants who are highly likely to be selected as a result of the interview, JST will contact the proposers by late September to confirm matters such as the feasibility of concluding a commissioned research agreement (contact will be made by email or telephone).

Applicants whose proposals are not selected for the interview will be notified by email within approximately five business days after the document review meeting, and those not selected after the interview will be notified by early October. Any review comments for the selection results will be provided by e-mail after early October.

(2) Submission of Research Proposal

Please download the documents needed for research application (Application Forms) from the “Call for Research Proposals” website. Some of the application forms are customized according to the Research Type so please make sure that you have downloaded **the application form from the website of the research program which you are going to apply.**

Research proposals (Application Forms) are submitted via the e-Rad system (<https://www.e-rad.go.jp/>). As the application deadline approaches, heavy demand on the e-Rad system could slow down the application processing speed and even cause the application deadline to be missed. Please give yourself enough time to complete submission of proposal. **Update of the application is strictly prohibited after the deadline. JST will not accept proposals for any reason if the application process has not been completed**

in the e-Rad system by the deadline. JST may provide instructions on the "Call for Research Proposals" website in cases when it is untenable to submit the application during the application call period due to reasons such as e-Rad system trouble.

The names and affiliations of applicants in the e-Rad system and those given in their research proposal should be matched (In case it differs, the research proposal will be considered as official). The application of a research proposal is neither received nor proceeds for review if it contains serious defects, which make the review of proposal difficult, including the lack of application, serious character corruption, and omissions of important items of the application forms.

JST is not responsible for any defects in application forms of a research proposal, which may be caused by any reasons before submission deadline, regardless of its status of receipt. JST asks, therefore, all applicants to understand that JST will not require any applicants to make any revisions of their research proposals, obtaining their consents on correction in advance before research proposal submission deadline.

(3) Research Types and Research Fields Calling for Proposals

Recognizing the growing importance of “knowledge exploration” across boundaries of emerging and converging fields, proposals under the ARiSE (hereinafter, “Program”) are invited in two research types: (i) a **“Strategic Target-Driven”** research type, which sets ambitious, clearly defined targets over approximately three years to accelerate R&D and social implementation beyond conventional disciplinary frameworks; and (ii) an **“International/ Convergence”** research type, which fosters cross-disciplinary integration, identifies promising ideas –including new potential avenues for success– and advances strategic international collaboration with world-leading institutions and researchers.

While AI excels at extracting cross-cutting patterns from large-scale datasets, the formulation of scientific questions and the critical evaluation of the validity and significance of these patterns remain the responsibility of researchers. To effectively integrate AI into the scientific process, close collaboration is essential between researchers specializing in AI—including those working in mathematical modeling and systems development (hereinafter “AI researchers”)—and researchers in the application domains (hereinafter “domain researchers”). Such collaboration should span the entire research lifecycle, from conceptual design through to validation and interpretation.

Under this Program, proposals are invited for each of the research types described below, with a focus on ambitious and challenging R&D initiatives that leverage the complementary expertise of AI researchers and domain researchers. Applicants are expected to collaborate

closely, sharing knowledge and perspectives to achieve common goals. In particular, both AI and domain researchers should serve as “Joint Proposers,” jointly defining a shared research question at the proposal stage and presenting a well-structured R&D plan, along with an appropriate organizational framework, to address that question effectively.

Please note that a proposer may submit only one proposal as a Project leader for the entire Program. An applicant for Supporting Pioneering Research through AI for 1,000 Discovery challenges Program (SPReAD) cannot simultaneously serve as ARiSE co-project leaders. Furthermore, there are no restrictions on overlapping applications with other competitive research funding schemes.

The overview of the call for proposals is shown in the table below.

Research Types	Program Officers (Honorifics omitted)	Scope of Research		Max. Total Research Budget* *including indirect cost	Expected Numbers of Projects to be Selected
Strategic Target-Driven	KUROHASHI Sadao, Director, National Institute of Information (NII)	Strategic Targets set by MEXT (T1-T3 on the right) *A	T1-1 “Strategic Target 1-1”	3 billion yen	Approx. 1
			T1-2 “Strategic Target 1-2”	3 billion yen	Approx. 1
			T1-3 “Strategic Target 1-3”	1 billion yen	Approx. 4
			T2 “Strategic Target 2”	2 billion yen	Approx. 3-4
			T3 “Strategic Target 3”	2 billion yen	Approx. 1-2

International / Convergence	UEDA, Naonori (Deputy Director, RIKEN Center for Advanced Intelligence Project (AIP),)	All research areas (not limited) *B *C	200 million yen *D	Approx. 20
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*A. In the Strategic Target-Driven research type, proposed R&D activities should build upon initiatives for which preparatory work or pilot implementation has already been undertaken. For details, please refer to “2. Overview of the Strategic Target-Driven Research Type.”

*B. When submitting a proposal, please indicate the field of expertise of the domain researcher(s). In the selection process, reviewers will be appointed, taking into account the domain researchers’ areas of expertise.

*C. Proposals that involve collaboration with researchers affiliated with overseas research institutions and who have secured both a research framework and funding to promote R&D in their own countries (hereinafter referred to as “international collaborators”) are also eligible. If an international collaborator participates, the review under one of the five evaluation criteria, “d. Implementation structure,” will take into account information such as previous collaborative works and the structure of collaboration to attain the proposed goals. For requirements for international collaborators, please refer to the application guidelines.

*D. A budget plan exceeding a total of 200 million yen may be permitted if it is demonstrably necessary to achieve the proposed goals. Such a plan may be included either at the proposal stage or requested after the commencement of R&D, contingent upon the achievement of specified milestones approximately one year after project initiation. However, the total budget for the project, including indirect costs, must not exceed 650 million yen over the entire project period. The appropriateness and justification of the proposed budget in relation to the proposed goals and plans will be evaluated as part of the selection process.

Please note that the research period is tentatively from October 2026 to March 2029 (approx. 2.5 years).

R&D proposals that aim to address innovative and ambitious challenges beyond existing assumptions are strongly encouraged.

(4) Definition of the terms under the Program

The following terms are defined for the purposes of this Program.

Program Director (PD)	Person, appointed by JST, who provides overall leadership and is responsible for comprehensive program management
Program Officer (PO)	Person(s) appointed by JST who are responsible for managing the respective Research Types to which they are assigned, including oversight of all R&D projects within each type
Advisors	External experts possessing relevant expertise who provide advice to POs
Project leader	Principal investigator (PI) who leads a proposed project for the entire research period and submits a proposal via e-Rad
Project co-leaders	PIs who co-lead and are responsible for a proposed project with project leader for the entire research period and is registered as a Co-PI on e-Rad
Joint Proposers	Collective term for the Project Leader and Project Co-Leaders. Under the ARiSE, joint proposers are required to submit research proposals.
Groups	Participating in a proposed Project to conduct a part of the research at the research institutes where Joint Proposers are NOT affiliated with
Group leader	PI who leads and is responsible for a group of the project
International Collaborators	Overseas researchers affiliated with foreign research institutions who participate in or co-lead a proposed project under the Program and have secured the necessary research framework and funding in their home countries
Private-sector Partners	Researchers affiliated with private-sector entities in Japan and abroad who participate in or co-lead the proposed project under the Program and who do not receive funding from JST
Responsible researcher	Researcher (Project Leader, Project Co-leader or Group Leader) who is primarily responsible for conducting the Project research at a research institution that concludes a research contract with

	JST (excluding international collaborators)
Research participants	All researchers including students and technicians participate in the proposed project

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1. Overview of the Program (ARiSE)

With the rapid advancement of Artificial Intelligence (AI), it has become possible to explore vast hypothesis spaces and propose candidate laws, structures, and design solutions, while researchers increasingly assume roles in validating and interpreting these outputs. As AI permeates all stages of the research process –from hypothesis generation and experimental design to data acquisition, analysis, and discovery– it is not only accelerating research but also reshaping the methodology of science itself. Efforts to leverage AI capacities across the research lifecycle –enhancing, automating, and enabling autonomous hypothesis generation, experimentation, analysis, and knowledge integration– are also expected to drive innovation in AI itself, particularly in the development of scientifically consistent AI systems that incorporate domain-specific theories and knowledge.

The “AI to Redesign Scientific Exploration (ARiSE)” (hereafter, “the Program”) serves as a flagship initiative to lead the concrete actions outlined in the Basic Strategic Policy for Promoting AI for Science (established by MEXT on March 31, 2026; hereinafter “Strategic Policy”). It aims to promote innovative R&D by generating world-leading scientific outcomes through focused investment in strategic targets that leverage Japan’ s strengths in AI for Science, as well as through strategic international collaboration with top-level research institutions and researchers worldwide.

Based on the Basic Policy for ARiSE Program (established by MEXT in April 2026; hereinafter “ARiSE Basic Policy”), proposals are invited in two research types: (i) a “**Strategic Target-Driven**” research type, which sets ambitious, clearly defined targets over approximately three years to accelerate R&D and social implementation beyond conventional disciplinary frameworks; and (ii) an “**International/ Convergence**” research type, which fosters cross-disciplinary integration, identifies promising ideas –including new potential avenues for success– and advances strategic international collaboration with world-leading institutions and researchers.

This call for proposals constitutes a competitive research funding program.

<Features of the Program>

The Program promotes R&D that transforms the research process by developing and deploying

scientific infrastructure systems –such as AI models and AI agents incorporating scientific theories, and next-generation AI-driven robotics– to address scientific questions that have been intractable under conventional approaches. It also aims to accelerate Japan’s AI for Science capabilities and enhance its global presence through strategic international collaboration with scientifically advanced allied and like-minded countries. To this end, the Program advances the following five initiatives:

(1) Joint proposals by AI and domain researchers

While AI excels at extracting cross-cutting patterns from large-scale data, defining scientific questions and validating inferred patterns remain the responsibility of researchers. Effective application of AI technologies to the scientific process requires close collaboration between AI and domain researchers across the entire lifecycle –from design to validation. Accordingly, this program requires joint proposals and joint leadership by AI and domain researchers as co-principal investigators.

(2) Planning for computational resources

Given the limited project duration, it is essential to identify in advance (including prospects for securing) the computational resources necessary to achieve project goals. Proposals must clearly specify the required scale and utilization plan for computational resources provided by RIKEN, universities, public research institutions, and private entities.

During selection process, external experts will assess the adequacy and appropriateness of the proposed resource plan. When use of RIKEN-provided resources (e.g., the provisional AI4S system) is planned, relevant units responsible for resource management at RIKEN may review portions of the proposal to ensure overall allocation feasibility. In all cases, proposal materials will be shared under confidentiality agreements with JST.

If the need for computational resources is unclear at the time of submission, applicants should indicate when this determination will be made (including estimates). If no such resources are expected to be used, the rationale should be provided in relation to the project’s objectives and anticipated outcomes.

Selection decisions will not be based solely on whether computational resources are

required.

(3) Promotion of international collaboration

As AI for Science is rapidly advancing under national S&T policies worldwide, enhancing Japan's presence within these international networks is one of the key objectives of the Program. The Program therefore supports projects involving collaboration with overseas researchers who have independent research capabilities and secured funding in their own countries ("international collaborators").

Where such international collaborators participate or co-lead projects, their suitability and the overall research structure will be evaluated.

Please note that these international collaborators are expected not to require funding from JST.

(4) Management and utilization of research data

Advancing AI for Science requires the continuous generation of high-quality research data, as well as next-generation information infrastructure aligned with the AI era to enable efficient, integrated data utilization. The Strategic Policy emphasizes the need for national efforts to centralize and visualize research data across domains in coordination with existing initiatives (e.g., ARIM, BINDS, inter-university research platforms, and large-scale facilities).

In the Program, data management and utilization shall be conducted under an "open-and-closed" strategy in line with the strategic policy. Each proposal must include a data management plan, which will be reviewed for adequacy and updated as appropriate during the project.

For materials science projects, data, AI models/agents, and tools generated should, in principle, be registered with the NIMS Data Core Hub (MDPF). In other fields, use of domain-specific data platforms and national core infrastructure such as the NII Research Data Cloud is encouraged.

(5) Ensuring Research Security

In addition to research integrity, the importance of research security has grown in

response to risks such as misuse of open research systems, threats to fairness and soundness, misuse of results, and technology leakage. Ensuring research security is essential for safeguarding open research environments and enabling secure international collaboration. JST has piloted measures under the JST-TRUST framework and, from FY2026, will implement management based on the Cabinet Office's "Procedures for Securing Research Security" (December 2025).

As the Program is designated as a Specific R&D Program, research security measures will be applied to both reviewers and applicants during the selection process. Further details on research security measures will be provided by JST to proposers selected for interviews.

<Management Organization of the Programs>

The Program is overseen by a Program Director (PD) appointed by JST, who provides overall leadership and is responsible for comprehensive program management. The PD makes decisions on key matters related to program implementation and operations, and coordinates cross-cutting issues, drawing on advice from members of the Program Steering Committee on important operational matters.

Program Officers (POs), under the overall direction of the PD, are responsible for managing the respective Research Types to which they are assigned, including oversight of all R&D projects within each type. Specifically, POs, with support from external experts such as Advisors (ADs) possessing relevant expertise, conduct the selection of candidate projects, monitor research progress, and evaluate project performance. They also make determinations on funding adjustments for projects, as well as early termination based on project evaluations.

2. Strategic Target-Driven Research Type

Under the Strategic Target-Driven research type, strategic targets are set in accordance with the Strategic Policy by MEXT, and concentrated investment is made to advance, in an integrated manner, the development and deployment of scientific foundation models, AI agents, next-generation AI-driven laboratory systems, and related scientific infrastructure. These efforts are organized as globally visible flagship projects, consisting of portfolios that bundle multiple R&D projects, with the aim of transforming the scientific research process through AI for Science.

The Program seeks to fundamentally strengthen Japan’s research capabilities while accelerating AI-driven scientific innovation, and to stimulate R&D investment through industry-academia collaboration. It further aims to generate innovations that redesign scientific exploration by enabling early implementation and commercialization of pioneering initiatives.

Specifically, this research type call invites proposals that contribute to achieving the strategic targets set forth in the ARiSE Basic Policy. In consideration of the project duration, proposals should build on initiatives that have already progressed beyond the preparation stage and have entered into initial implementation or pilot phases.

<Table: Strategic Targets, Project Budget and Number of Projects to be Selected>

Scope of Research	Total Project Budget (including indirect cost)	Number of Projects to be Selected*
<p>T1 “Strategic target 1” : To enable Japanese companies to rapidly produce materials essential to global supply chains in the future, this target seeks to realize AI-driven materials development systems with the potential to increase the speed of new materials discovery tenfold compared to current levels:</p>		
<p>T1-1 “Strategic target 1-1” Proposals should aim to develop materials science foundation models and AI agent systems that transform inference, along with their international benchmarks, and to establish frameworks and secure funding*¹ for the</p>	<p>Approx. JPY 3 billion</p>	<p>Approx. 1 project</p>

continuous accumulation of computational and experimental data beyond the project period.		
<p>T1-2 “Strategic target 1-2”</p> <p>Proposals should aim to integrate component technologies—including materials science foundation models, AI agent systems, orchestration software, and advanced research equipment—to enable human-AI co-creation*², and to develop and demonstrate international benchmarks for AI-driven materials development systems capable of inference, planning, autonomous experimentation, and report generation. Proposals are also expected to present a pathway toward securing private-sector investment*³.</p>	Approx. JPY 3 billion	Approx. 1 project
<p>T1-3 “Strategic target 1-3”</p> <p>Proposals should aim to develop AI models and AI agent systems for specific materials, along with their international benchmarks, and to undertake prototype development of innovative material candidates. Proposals are also expected to include plans for securing the resources necessary to sustain development beyond the project period.</p>	Approx. JPY 1 billion	Approx. 4 projects
<p><u>T2 “Strategic Target 2”</u></p> <p>This target aims to develop, within three years, bio-generative foundation models that enable Japan to maintain international competitiveness in high-precision and efficient bioproduct development and drug discovery, including through the realization of digital twin models of cells, biological systems, plants, animals, and human organs. Proposals are expected to leverage Japan’s strengths to promote large-scale data acquisition and the development of AI-ready datasets, including through AI-driven laboratory systems.</p>	Approx. JPY 2 billion	3 or 4 projects
<p><u>T3 “Strategic Target 3”</u></p> <p>This target aims to develop and demonstrate state-of-the-art AI agent systems and AI foundation models to enhance the operation and utilization of Japan’s world-leading large-scale research facilities and instruments, through optimized operation for high utilization, stability, and measurement performance; automation and autonomy for high-throughput experimentation; and improved data analysis, hypothesis validation, and</p>	Approx. JPY 2 billion	1 or 2 projects

<p>experimental design using AI-driven digital twin models and high-precision simulations.</p> <p>Proposals are expected to leverage these technologies to advance efficient measurement, experimentation, and large-scale data analysis.</p>		
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*The number of projects to be selected may vary depending on the total budget, the results of the selection process, and other relevant factors.

*1 In addition to the research funding from JST, funding may also be obtained from sources such as joint R&D funding from industry, membership fees, and user fees. This also applies to T1-3 “Strategic Target 1-3.”

*2 Human-AI Co-scientist

*3 Funding levels equivalent to seed to Series A stages

To effectively advance the R&D outlined above, it is essential to establish integrated research frameworks in which AI and domain researchers collaborate closely, including through joint efforts in data sharing and model validation. In AI development, private-sector entities may possess advanced research infrastructure; accordingly, proposals may include research frameworks involving private-sector organizations, as well as their participation in the projects. However, where research funding is to be provided by JST, such private-sector organizations must meet the eligibility requirements for research institutions, and additional information may be requested by JST as necessary. For details, please refer to “4. (3) Eligibility & Requirements of Research Institution”. If necessary, please consult to JST before proposal submissions.

Furthermore, as global efforts in AI for Science continue to accelerate, Japan is expected to enhance its international presence by pursuing well-defined international strategies and by leading emerging trends in AI-enabled scientific discovery and innovation. Accordingly, projects involving collaboration with international collaborators are also within scope. Under this research type, proposals will be evaluated on whether the rationale for establishing an international collaboration framework (i.e., the international strategy of the proposal) is clear and appropriate, and whether the proposed structure represents an optimal team for executing the project. International collaborators are expected to have secured research support from funding agencies or other sources in their own countries and should not require research funding from JST.

<Selection Criteria for Strategic Target-Driven>

The selection criteria for this research type are described in the following:

(All criteria must be met, and this research type is intended for initiatives that have already undergone preparatory work or preliminary trials)

- a. **Goal and Purpose:** The proposal is aligned with the purpose of the program and is expected to generate results that will contribute to the achievement of the selected Strategic Target.
- b. **Originality and Excellence:** The proposal must be original and superior, both in comparison to current trends and similar research undertaken domestically and internationally.
- c. **Objective and Plan:** The objectives to be achieved within the research period, as well as the research plan and implementation structure (including international cooperation) and the budget plan, are expected to be clearly, specifically, and appropriately described.
- d. **Implementation Structure:** The project implementation structure (including international collaborators) should be appropriately designed to effectively execute the research proposal.
- e. **Ability to Conduct Research:** The Project Leader and Co-Leader(s) are expected to possess the necessary experience and capability to effectively execute the proposed research.

3. International/Convergence Research Type

Under the “International/Convergence” research type of the Program, all research fields are eligible –including emerging and converging domains as well as priority areas defined in the Strategic Policy. Through strategic international collaboration with scientifically advanced allied and like-minded countries, this research type promotes the formation of world-class research teams and advances original tools related to AI for Science. Through these efforts, it aims to explore new pathways to success (upcoming for further investment), participate in global scientific challenges, and achieve leading performance in international benchmarks, thereby joining the top tier of global research.

Rather than merely applying existing AI technologies, this research type supports R&D aimed at solving previously unsolved scientific questions by embedding domain-specific theories, laws, structural knowledge, and constraints into AI, and integrating them into learning and inference processes to create innovative AI technologies, including AI-driven robotic systems.

Scope of Research	Total Project Budget (including indirect cost)	Number of Projects to be Selected*
All research areas (not limited) ^{*A, *B}	Approx. JPY 200 million ^{*C}	Approx. 20 projects

* The number of projects to be selected may vary depending on the total budget, the results of the selection process, and other relevant factors.

*A Please specify the field of expertise of the researcher(s) in the application domain of AI (“domain researchers”). Reviewers will be selected with consideration of these areas of expertise.

*B Proposals involving collaboration with researchers affiliated with overseas institutions who have established research systems and secured funding in their home countries (“international collaborators”) are also eligible. For such proposals, their track record and collaboration framework will be considered under criterion (d) “Implementation Structure.”

*C If necessary to achieve the project objectives, a total budget exceeding JPY 200 million may be proposed at the application stage or additionally upon achieving specific milestones (typically within about one year). The total budget is capped at JPY 650 million for the entire project period, including indirect costs, and its appropriateness

will be evaluated in the selection process.

Specifically, it targets R&D projects that develop AI models and AI agents with scientific consistency in their respective fields, based on domain-specific datasets, experimental protocols, and simulation techniques. It also includes projects that prototype and demonstrate AI-driven robots and modules. Projects that further undertake the development of methods for constructing AI-ready data to expand the applicability of AI models, as well as the development and demonstration of automated measurement and analysis techniques for acquiring high-quality data, are also within the scope.

By developing AI technologies that incorporate scientific theory, this research type is expected to bring about qualitative transformations in the respective scientific fields. These technologies are also anticipated to serve as next-generation R&D tools or operating systems and to establish new international benchmarks. Furthermore, they are expected to be broadly applicable across diverse research domains in the future and to generate wide-ranging impact.

The following are examples of R&D themes envisioned under this research type:

<Examples> (in no particular order)

- Development of AI models that accurately and rapidly predict and reproduce the behavior of physical and natural phenomena under environmental conditions and scales that are difficult to measure directly, by integrating observational data with simulation data based on physical laws
- R&D of search and optimization AI agents that autonomously perform the full cycle from candidate generation to evaluation for problems with vast design spaces, such as material candidates and experimental conditions
- Research to achieve highly accurate and reproducible automation of experimental processes –including sample manipulation, measurement, and data (including metadata) acquisition– through the use of robotics and AI-based control systems

To effectively advance the R&D described above, it is essential to establish integrated frameworks in which AI and domain researchers collaborate closely across existing disciplinary boundaries, including through joint efforts in data sharing and model validation. In addition, as global efforts in AI for Science continue to accelerate, Japan

is expected to enhance its international presence by collaborating not only domestically but also with researchers overseas, and by leading emerging trends in AI-enabled scientific discovery and innovation.

Accordingly, under this research type of the Program, proposals are sought to address challenging scientific questions without being confined to specific disciplines, and to establish collaborative frameworks in which AI and domain researchers work in close partnership, as described above.

Furthermore, proposals involving collaboration with researchers affiliated with overseas research institutions who have secured the necessary research frameworks and funding in their respective countries (hereafter, “international collaborators”) are encouraged.

Where international collaborators participate, proposals that demonstrate an optimal implementation framework for executing the proposed work – taking into account the suitability and appropriateness of such collaborators under criterion “d. Implementation Structure” of the five evaluation criteria specified in the “Evaluation Criteria” – will be given positive consideration.

<Selection Criteria for International/Convergence Research Type>

The selection criteria for this research type are described in the following:

(All criteria must be met)

- a. **Goal and Purpose:** The proposal is aligned with the purpose of the program and is expected to generate results that the program and the research type aim to archive.
- b. **Originality and Excellence:** The proposal must be original and superior, both in comparison to current trends and similar research undertaken domestically and internationally.
- c. **Objective and Plan:** The objectives to be achieved within the research period, as well as the research plan and implementation structure (including international cooperation) and the budget plan, are expected to be clearly, specifically, and appropriately described.
- d. **Implementation Structure:** The project implementation structure (including international collaborators) should be appropriately designed to effectively execute the research proposal.
- e. **Ability to Conduct Research:** The Project Leader and Co-Leader(s) are expected to possess

the necessary experience and capability to effectively execute the proposed research.

4. Common Issues for Application, Selection and Implementation

(1) Requirements prior to Proposal Submission

The proposal submission requirements are as follows. Please note these requirements in advance:

- If it is found that the proposal submission requirements are not met by the time of selection, the proposal will, in principle, not be reviewed or will be rejected.
- If selected, the proposal submission requirements must be maintained throughout the entire duration of the research period. If the requirements cease to be met during the research period, the whole or parts of research will, in principle, be terminated (early termination).

(i) Eligibility of Joint Proposers (Project Leader and Project Co-Leaders)

- a. The joint proposers must be researchers who are able to assume overall responsibility for the entire project as the leaders of the research team throughout the full duration of the project.
- b. The joint proposers must have completed a program on research ethics at their affiliated institutions in advance or must complete a program provided by JST by the application deadline.
- c. At the time of application submission, the joint proposers must be able to agree to the following four declarations:

*Confirmation will be requested via the e-Rad application system.

- To understand and comply with the “Guidelines for Responding to Misconduct in Research Activities” (adopted by MEXT on August 26, 2014).
- To understand and comply with the “Guidelines for the Management and Audit of Public Research Funds at Research Institutions (Implementation Standards)” (revised on February 1, 2021).
- In the event that the proposal is selected, all research participants (including Joint Proposers, Group Leaders, and research participants) will not engage in research misconduct (fabrication, falsification, or plagiarism) or misuse of research funds.
- That no research misconduct has occurred in relation to the past research

achievements described in the proposal for this program.

- d. At least the Project Leader among the Joint Proposers must belong to a research institution in Japan and conduct the proposed R&D at that institution (nationality is not restricted).

The following individuals are also eligible to apply as Project Leaders:

- Researchers of non-Japanese nationality affiliated with research institutions in Japan.
- Researchers who are not currently affiliated with a specific institution, or who are affiliated with an overseas research institution, provided that they are able to establish a system to conduct the research at a research institution in Japan if selected as Project Leader (no restriction on nationality).
- Researchers affiliated with private companies or other organizations in Japan.

In addition, researchers affiliated with overseas research institutions (international collaborators) may serve as Project Co-Leaders. When an international collaborator serves as a Project Co-Leader(s), they will be expected to assume responsibility for the overall research team, including the planning and execution of the research, in accordance with the requirements for Joint Proposers described above.

(ii) Requirement for R&D Implementation Structure by Joint Proposers

Depending on the research type and strategic target, the Joint Proposers may form an appropriate and well-designed team consisting of multiple researchers (groups) responsible for the relevant scientific fields as well as for AI model and system development.

- a. The Joint Proposers shall consist of two or three researchers from AI and domain researchers. One of them should serve as the Project Leader, and one or two shall serve as Project Co-Leaders. The Joint Proposers shall bear equal responsibility for the overall proposed project.
- b. The Joint Proposer may organize a project team composed of members from their respective laboratories or groups. In addition, if necessary to achieve the objectives of the proposed research, a project team may also include “collaborating groups” consisting of researchers affiliated with laboratories or research institutions different from those of the Project Leader and Project Co-Leaders.

- c. Among the researchers comprising the project team, those who is responsible for the “collaborating groups” are referred to as “Group Leaders.”
- d. As necessary for the promotion of proposed project, research staff and assistants may be employed within the scope of the research budget and may participate in the R&D team.

(2) Eligibility and Requirement for the R&D Implementation Structure

- a. The project team must be organized in an optimal structure that is best suited to realizing the R&D concept proposed by the Joint Proposers.
- b. When groups are established within the project team, each group must be indispensable for achieving the proposed R&D concept and capable of making significant contributions toward the achievement of the research objectives.
- c. In cases where researchers affiliated with overseas research institutions (international collaborators) participate as Project Co-Leader(s) or participant(s), it must be demonstrated that the proposed R&D cannot be effectively conducted without their involvement in order to achieve the objectives of the proposal (subject to approval by the Program Officer). In such cases, appropriate arrangements must be made to ensure that research outcomes, including intellectual property, can be properly managed and tracked. Furthermore, collaboration arrangements shall be established through a collaborative research agreement (e.g., COLLABORATIVE RESEARCH AGREEMENT) between the Japanese research institutions to which the Project Leader and/or Project Co-leader(s) belong and the institutions of the international collaborators, within a scope that does not conflict with the research contract between JST and the domestic research institutions.
 - *Proposals involving international collaborators are welcomed under this program. However, in principle, international collaborators are not eligible to receive research funding directly from JST and are therefore required to secure their own funding in their country.*
 - *Institutions listed on the “Foreign End User List” published by the Ministry of Economy, Trade and Industry (METI) under Article 4, Paragraph 1, Item (iii) (a) of the Export Trade Control Order, concerning activities related to the development of weapons of mass destruction, are excluded from participation from the*

perspective of security export control.

Foreign End User List: <https://www.meti.go.jp/policy/anpo/law00.html#userlist>

(3) Eligibility and Requirements of Research Institution

Research Institutions that conduct ARiSE research must fully understand that the research funds are public funding, and must ensure compliance with related law, and make efforts to conduct the research effectively. Research Institutions that cannot accomplish the tasks described in “Responsibilities of Research Institutions” will not be enjoined to implement research; thus, when applying, prior consent of the Research Institution at which the implementation of research is planned must be obtained.

In particular, when an international collaborator serves as a Project Co-Leader, necessary measures must be taken to ensure that the international collaborator is able to fulfill the responsibilities of a Responsible researcher. Such measures shall include, where appropriate, the conclusion of an international collaborative research agreement or equivalent arrangement between the institution of the Project Leader and the institution of the international collaborator, within a scope that does not conflict with the research contract between JST and the domestic research institutions to which the Project Leader and/or R&D participants belong.

(4) Submission of Research Proposal

Please download the documents needed for research application including application forms from the “Call for Research Proposals” website. Some of the application forms are customized according to the Research Type, please ensure that you have downloaded the application forms to which you are applying.

Call for Proposals Website: <https://www.jst.go.jp/program/arise/koubo.html>

The list of required application documents is as follows.

Form No.	Document Title
Form 1	Basic Information
Form 2	Project Description
Form 3	Originality and Excellence of the Proposal

Form 4-1	Objectives and Research Plans
Form 4-2	Research Budget Plan
Form 5	Project Implementation Structure (Overall)※3
Form 6-1	Achievements (Project Leader)
Form 6-2	Achievements (Project Co-Leader)
Form 7	Disclosure of Funds
Form 8	Other Important Information
[Appendix 1]	Data Management Plan
[Appendix 2]	Computational Resource Utilization Plan

(5) Selection Method

(i) Selection Process

The Program Officer (PO) in charge of overall promotion will, with the assistance of Advisors, determine the projects to be selected through both document screening and interviews, based on evaluations from the perspectives of AI and the relevant domain research.

(ii) Management of Conflicts of Interest (COI)

We take the management of conflicts of interest based on the provisions of JST from the viewpoint of a fair and transparent evaluation and the distribution of research funds.

<Persons Involved in the Selection Process>

To ensure fair and transparent evaluations, the following persons with conflicts of interest related to the Joint Proposers (herein after “applicants” in this section) will not be involved in the selection process. If Joint Proposers have any suspicion about conflicts of interest, please describe it specifically in the Notice section of the application Form 8.

- a. Persons who are relatives of applicants
- b. Persons who are affiliated with the same department/ faculty or specialty at a university to which the applicants are affiliated, who are board members or considered affiliated members of the same university or managed corporation, or who

act as the representative of the university management

- c. Persons who are affiliated with the same or group company with which applicants are affiliated
- d. Persons who are conducting a close collaboration in a research work with applicants. (Examples are those who are conducting a joint research project or have co-authored a paper with applicants, a researcher pursuing the same research objectives as applicants, a participant or a Co-PI of the research project, others, being recognized those practically affiliated with same research group.)
- e. Persons in a close teacher–student relationship, or in a direct employer–employee relationship
- f. Persons in relationships of direct competition with applicants
- g. Persons in other relationships judged by JST to representing conflicts of interest with applicants.

<Conflict of Interest with Joint Proposers>

It will be judged as a conflict of interest with Joint Proposers (applicants) when applicants appoint research group that is related to applicants (e.g. start-up entity established based on R&D achievements by the applicants etc.) and allocate research fund of JST to these institutions. It is clear that the applicant's affiliated institution would be responsible for managing the applicant's conflict of interest, while JST is responsible for allocating public research funds, a process that requires fairness and transparency in decision-making. Therefore, management for conflict of interest between applicant and his/her related institution would be conducted in the light of necessity, rationality, affordability in the selection process to secure the accountability.

“An organization that is related to the applicants” refers to any of the organizations that fall under the following categories. Items “a” and “b” are applicable not only to the applicants but also to the spouse and the relatives in the first degree of the applicants.

- a. An organization established based on R&D achievement of the applicants
(Including the case in which the applicants are not directly involved in the business management but are merely given a title such as technical consultant and the case

in which applicants have stocks.)

- b. An organization in which the applicant(s) is a director (including a CTO but excluding a technical consultant)
- c. An organization in which the applicant(s) has stocks.
- d. An organization from which the applicant(s) is rewarded for implementation.

For a research proposal in which a researcher who belongs to the related organization of the applicant(s), is assigned as a joint proposer, it will be strictly judged from the viewpoint of requirement, rationality, and relevance.

In this case, declare that a researcher who belongs to the related organization of the applicant(s), is included in the research team in the “special remarks (Form 8)”.

Additional documents may be requested to judge conflicts of interest with the applicant(s) during the selection process.

<Conflict of Interest with JST>

It is regarded as conflicts of interest on the JST side (conflicts of interest as an organization) to distribute, in the ARiSE, a research fund to a company JST has invested in (hereinafter “invested company”). Therefore, to avoid any doubt of third party, JST clarifies it to avoid the conflict of interests between JST and the invested companies.

With respect to the proposals made by a researcher who belongs to an invested company of JST, we assess the necessity, rationality, and adequacy of the applicable invested company.

For that purpose, if a researcher who belongs to an invested company of JST is regarded as a proposer, please fill in the “special remarks (Form 8)” to declare that a researcher who belongs to the applicable invested company is included in the proposers.

This management is taken to guarantee the fairness and transparency of the process on the JST side. It is not disadvantageous to have accepted funds from JST in the process of adoption in the ARiSE. Applicants are asked to be cooperative in JST’s management of conflicts of interest.

※Please refer to the website below for information on JST’s investing companies.

Note: Companies that have terminated their investment are not subject to conflict-of-interest management and you do not need to report.

<https://www.jst.go.jp/entre/result.html#M01>

※The base date for declaration is starting application call date. Please report on companies whose investment from JST has been publicly announced. When the companies have already received an offer of investment but have not yet made a public announcement, declaration is not required for confidentiality reasons within JST. Please refer to the following website for JST's announcement of investment.

<https://www.jst.go.jp/entre/news.html>

(6) Research Plan Preparation

- a. Once the proposal is selected, the Joint Proposers (Project leader and Project Co-leader(s)) are requested to design an overall research plan covering the entire period of their research. The proposed research budget will be reviewed during the selection process. The actual research budget will be determined by JST following a detailed review and approval of the research plan by the Program Officer (PO).
- b. Research plans become official once they are examined and approved by the PO. The PO will offer advice and coordination assistance on the research plan, and provide instruction, when necessary, based on information the PO gains through, for example, the project selection process and discussions.
- c. The PO, in approving research plan to achieve objectives, including the achievement of the overall objectives of a Research Type / Strategic Targets, may merge or link R&S teams, or take other coordinative actions.
- d. Research organizations and budgets set forth in research plans may be revised during the research period in response to overall budget conditions of the Program, any management actions taken by the PO.

(7) Research Contract

- a. Once a research proposal is selected, JST, in principle, will enter into a Research Contract with the research institutions. If an International Collaborator joins as a Project co-leader(s) or a Responsible researcher, no commissioned research

agreement will be concluded with JST, as it is assumed that the international collaborator(s) has secured research funding in their own country.

- b. If it is not possible to conclude Research Contract with these research institutions, or not possible to put in place the management and audit systems required in connection with the use of public funds, or the financial situation is extremely unstable, the research may not be carried out at the institutions in question.
- c. In principle, patents and other intellectual property rights resulting from research shall, in accordance with Research Contract terms, reside with research institutions under the condition that the research institutions abide by the items provided in Article 17 (Japanese version of the Bayh-Dole Act) of the Industrial Technology Enhancement Act.

(8) Multiple-year Contract and Carryover

From the perspective of the effective and efficient use of research expenses to maximize research results and prevent unauthorized use, to be capable of carrying over research expenses and procurement contracts in subsequent financial years, JST has made multiple-year contracts available. Regarding the carryover, universities and profit-making companies are treated differently. In addition, there may be cases where concluding a multi-year contract and making a carryover of research expenses are impossible at some institutions because their official administration systems are unsuitable for the purpose. However, please note that the carryover procedure is not applicable in case of single-year contracts such as contracts with foreign research institutions.

(9) Research Costs

Based on research contract, JST will pay the research institution in Japan the research costs (direct costs) plus indirect costs (in principle, 30% of direct costs)

<Research Costs (Direct Costs)>

Direct costs are research costs directly related to and required for pursuing the subject research (*1).

- a. Equipment / Consumables: Costs for purchasing new facilities (*2), equipment,

consumables.

- b. Travel Expenses: Expenses for travel by the researchers and other participants listed in the Research Proposal.
- c. Personnel Expenses / Honorariums: Salaries for Research Participants (*3) and honorariums (*4) (*5).
- d. Other Expenses: Costs of the presentation of research results (research paper submission fees, etc.), costs for leasing and transferring equipment, costs to use computational resources, etc. (*2)

*1: The following are examples of items not handled as research costs (direct cost).

- Costs for items not consistent with the research objectives.
- Costs that are considered to be more appropriately handled as overhead costs (indirect cost).
- Costs that JST judges that use is not appropriate in the settlement of commissioned research expenses. (*)

* JST has established rules and guidelines specific to this project for some items, based on commissioned research contracts, administrative manuals, and the cross-ministerial expenses handling table, etc. Also, handling may differ between universities, etc. (universities, public research institutions, public interest corporations, etc. accepted by JST) and companies, etc. (mainly research institutions other than universities, etc., such as private enterprises). For details, refer to JST official administration manuals on the abovementioned URL.

<https://www.jst.go.jp/contract/index2.html>

*2: In principle, in a university, the person serving as the Joint Proposers (hereinafter referred to as the "PI" in the following reference) of a project receiving JST competitive research funds can use the funds for their personnel expenses and/or the costs of someone carrying out their duties other than research (buyout costs), if certain requirements are met. The necessary requirements are set out below;

○ "Review of the Possibility of the Use of Direct Costs for Someone to Carry Out

Duties Other Than Research (Introduction of Buyout System) and for Principal Investigator (PI) Personnel Expenses (contact)” (Revised on November 13, 2020)
<https://www.jst.go.jp/osirase/2020/pdf/20200917.pdf>

<Indirect Costs (overhead costs)>

Indirect costs are as costs required for the management, etc. of research institutions pursuing research; they are in principle capped at 30% of direct costs. According to “Common Guidance for the Execution of Indirect Expenses of the Competitive Fund” (agreed upon by the coordination committees of relevant ministries and agencies on April 20, 2001, and revised on May 31, 2023), a policy on use, etc. shall be created and shall be systematically and properly executed to ensure that use of indirect cost be transparent.

(10) Responsibilities of Joint Proposers (Project leader and Project Co-leader(s))

Joint Proposers are obliged to conduct their research, honestly and effectively, fully understanding that their research is funded by precious tax revenues collected from citizens.

- (1) Joint Proposers must agree to fulfill the following duties presented to them at JST briefing and other and submit an agreement to JST, after their research proposal is selected.
 - a. Comply with requirements such as Application Guidelines and Rules of Institution.
 - b. Understand that JST research budgets are funded by tax revenues from citizens and do not become involved in any research misconduct, including fabrication, falsification, plagiarism, and/or the improper use of the research fund.
 - c. Ensure that all the group leaders and research participants in the project team are informed of the Educational Program on Research Integrity and let them to enroll in and complete the program.
 - d. Note that failure to complete the Educational Program on Research Integrity above in c. would result in the suspension of the research budget until the completion has been confirmed by JST.
- (2) Not only Joint Proposers but also all Responsible researchers (Group leaders) are

required to complete research ethics training in order to prevent research misconduct (fabrication, falsification, and plagiarism).

(3) Pursuing and Managing Research

- a. Joint Proposers take responsibility for the whole research team, including the preparation and implementation of their research plan.
- b. Joint Proposers are required to submit necessary documents to JST (including the Program Officer (PO)), such as research plans and research reports, and to respond to research evaluations. Joint Proposers will also be required to provide reports on the progress of the research as requested by the PO, including periodic reports such as annual reports.
- c. To ensure appropriate research promotion and evaluation, it is a principle that Joint Proposers cannot engage in collaborative research with PO / advisors on the adopted projects. If new conflicts of interest arise from collaboration or other interactions outside the adopted projects with the PO / advisors, it is necessary to manage these conflicts of interest. Therefore, Joint Proposers are required to report to JST in advance.

(4) Joint Proposers shall appropriately manage (expenditure planning, monitoring, etc.) overall research budgets for research teams. Joint Proposers shall appropriately manage (expenditure planning, monitoring, etc.) research budgets for their own research team.

(5) Joint Proposers must be mindful of research and working environments and conditions for their own team's research participants.

(6) Joint Proposers should actively support young doctoral researchers. In addition, in interim and completion evaluations, questions will be asked regarding the status of career path assistance efforts and the post-completion career paths of young doctoral researchers. Responses to these questions will be positively evaluated.

(7) Joint Proposers are obliged to participate in Research Type meetings with the PO and advisors (typically held once a year, sometimes in a retreat format) and engage in activities such as reporting on research results.

(8) Handling of Research Results

- a. Given that research results are obtained with the public funding, it is requested

that research results be actively reported both domestically and internationally, with due consideration for the acquisition of intellectual property rights. Furthermore, Joint Proposers are kindly requested to cooperate in facilitating the open access of research papers and related documents (*).

* <https://www.jst.go.jp/all/about/houshin.html#houshin04>

- b. When reporting on research results through research papers or other media, please acknowledge that the research results were obtained by the AI to Redesign Scientific Exploration (ARiSE) . Please note that those without acknowledgement to the ARiSE may not be counted as research results for project evaluation.
 - c. Joint Proposers and other research participants may be requested to participate in domestic and international workshops and symposia sponsored by JST to report research results.
 - d. It is requested that an active effort be made to secure intellectual property rights. In principle, intellectual property rights are applied for by the research institution in accordance with the research contract.
- (9) Joint Proposers are requested to actively engage citizens in discussions of science and technology to promote citizens' understanding and supporting of science and technology. Especially, efforts on the engagement of citizens will be positively evaluated at project evaluation.
- (10) Joint Proposers shall abide by Research Contract entered by JST and research institutions and shall abide by JST' s various rules.
- (11) It should be noted that JST will provide research project names, researchers names, research budget information, and other required information to the Cross-ministerial R&D Management System (e-Rad) and the Government Research and Development Database. Joint Proposers and group leaders are going to be requested to provide these types of information in this respect.
- (12) Joint Proposers are required to cooperate with research evaluations, accounting audits and other similar activities.
- (13) Joint Proposers are requested to provide various types of information, responding to interviews, etc., for the follow-up investigation that will be performed sometime after the completion of project.

(11) Responsibilities of Research Institutions

Research Institutions must fully recognize that the research funds are public funding and ensure compliance with related law and make efforts to implement the research effectively. Research institutions that cannot accomplish the tasks described below will not implement research. Joint Proposers are requested to obtain a consent of pursuing the tasks from their implementing research institutions before conducting research.

- a. Research institutions are obliged to conclude a Research Contract with contents proposed by JST, as a standard, also they are obliged to properly implement research, in accordance with the Research Contract, administration process manual, and research plan approved by the Research Supervisor and JST. In the case, if they cannot conclude a research contract with JST, or judged by JST that they cannot properly implement research, an implementation of a research at the institutions shall not be admitted.

※ The latest sample of research contract is available to the following URL.

<https://www.jst.go.jp/contract/index2.html>

- b. Research institutions with an autonomous institutional management and audit system for public research budgets are obligated to properly execute the contract research funds in accordance with the “Guidelines for the Management and Audit of Public Research Funds in Research Institutions (Practice Standards)” (decided by the Minister of MEXT on February 15, 2007 / revised on Feb. 1, 2021) in addition to reporting the status of their management and audit system for public research budgets to the Ministry of Education, Culture, Sports, Science and Technology, research institutions are also obligated to be cooperative in various investigations into their system implementation and other related matters.

※ Please refer to the following URL for the guidelines.

https://www.mext.go.jp/a_menu/kansa/houkoku/1343904_21.htm

- c. In accordance with the “Guidelines for Responding to Misconduct in Research” (August 26, 2014, adopted by MEXT), research institutions are obliged to implement regulations and systems necessary for preventing research misconducts, and are responsible for operating the regulations and systems effective in actual situations. Also, they are responsible for responding to various investigations relating to the

construction of administration based on the guideline.

※Please refer to the following URL for the guidelines.

https://www.mext.go.jp/b_menu/houdou/26/08/1351568.htm

- d. Research institutions are responsible for ensuring that associated researchers fully recognize the contents of the above guidelines described in b. and c. and making them trained with educational materials related to research ethics provided by JST.
- e. Research institutions should expend and manage research expenses properly in accordance with the regulations of the research organization while keeping reasonable flexibility in the expenditure operation; as for expense items subjected to the administrative process manual, etc., provided by JST, stating special regulation rules of expense in the ARiSE Programs. (Research institutions receiving Grants-in-Aid for Scientific Research expenses can handle their expense in conformity with the handling rule of the Grant-in-Aid for Scientific Research expenses, as for items not described in the administrative process manual).
- f. Research institutions need to conclude contracts with researchers who are going to participate in the research and are to be inventors of intellectual properties regarding the research, to ensure the properties be transferred from the researchers to the institutions. In particular, when a person who is not subject to the service invention regulations of a research institution such as a student who is not in an employment relationship with the research institution is a research participant, it is necessary to take appropriate action, such as concluding an contract with the student in advance to ensure that intellectual property rights pertaining to the invention (including conception) made by the student in the course of conducting the research belong to the research institution, except in cases where it is clear that the student cannot become the inventor. Regarding the conditions of compensation for transfer of intellectual property rights, those concerned are asked to act in a way that is not unfavorable to the student who is the inventor.

As a general rule, prior approval from JST is required when transferring intellectual property rights to another party or granting an exclusive license. Furthermore, prior reporting to JST is required when filing an application, registering, implementing, or abandoning an intellectual property right.

- g. Research institutions are obligated to respond to accounting investigations by JST and account audits by the government.
- h. Research institutions are obliged to obey measures pertaining to the change of terms of payment as well as accept the decrease of payments decided by JST, based on JST investigations on their administrative management systems, financial conditions, etc.

In addition, if the project evaluation at the end of the JST mid- and long-term target period calls for the dissolution or contraction of the JST, or changes in the state of budgetary measures in the national budget, in the case of contract cancellation and contract research expenses reduction measures may be taken on the contract period. In addition, based on the annual reports and/or evaluation of research, it may take measures such as increase or decrease of commissioned research expenses, change of contract period, cancellation of research, etc., and when JST judges that the continuation of research is not appropriate. Even during the term of the contract, JST may take measures such as cancellation of the contract. Research institutions need to follow these measures.

- i. When research institutions are national or municipal organizations, such institutions concluding research contracts are definitively obliged to implement necessary budgetary measures before entering research contracts for which they are responsible. (In case it becomes apparent that the non-fulfillment of necessary measures has not been taken, after the concluding the contract, JST will take measures to release the research contract and rescind the research funds.)
- j. As for prevent misconduct in research and development activities, JST has required all research participants selected in research project and affiliated with a research institution, to complete one of the following programs or courses.
 - Provided by APRIN, Association for the Promotion of Research Integrity [eAPRIN]
 - Provided by JSPS, Japan Society for the Promotion of Science [eL CoRE]
 - Provided by JSPS, Japan Society for the Promotion of Science [For the Sound Development of Science – The Code of Conduct for Sincere Scientists-]
 - Provided by AMED, Japan Agency for Medical Research and Development [A Compendium of Near-Miss Incidents Related to Research Integrity]
 - Other research ethics education programs and training sessions deemed equivalent

- by the affiliated research institution. (If the research institution considers it equivalent, the video material "Gaps in Ethics" provided by JST is also acceptable.)
- k. To ensure that there are no impediments to the proper implementation of research or the utilization of research results, etc., please take necessary measures, such as concluding joint research agreements with participating institutions, within the scope that does not violate the contract research agreement with JST.
 - l. Research institutions are requested to take appropriate measures to fulfill their accountability, paying full attention to economics, efficiency, effectiveness, legitimacy, and accuracy, since the national funds as a source of funding shall be used for entrusted research expenses. In addition, research institutions should make sure working on planned execution and not to procure for the purpose of budget reduction at the end of the research period or at the end of the fiscal year.

(12) The use of JREC-IN Portal

The database of research human resources (JREC-IN <https://jrecin.jst.go.jp/>) is the largest website supporting research human resources in Japan. It is free to browse this service containing information on human resources, including researchers, their supporters, and engineers involved in research.

At present, the database holds more than 25,000 pieces of information on needed human resources from universities, public research organizations, and private business firms, in addition to more than 140,000 registered users. Furthermore, use of the Portal's job application functionality enables the simplification of application documentation management while reducing the burden on job applicants. Please use JREC-IN Portal to look for research human resources (postdoctoral, researchers, and so on) with high levels of knowledge to promote research.

Furthermore, JREC-IN Portal is linked to researchmap, may log in with a researchmap ID and password. It functions for the preparation of resumes; achievement lists can use the information registered in researchmap to prepare these documents.

ARISE (AI to Redesign Scientific Exploration)

Please make sure to visit our Call for Research Proposals page for the latest updates:

<https://www.jst.go.jp/program/arise/koubo.html>

【Contact for Inquiries】

※We are unable to respond to any inquiries regarding the selection process or results. Please ensure that all inquiries are made via email.

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