

Outline of the Call for Proposals on
the OPEN MIX LAB (OML) Program for
FY 2024

September 2023

National Institutes of Natural Sciences

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1. Purpose of the Program

The Open Mix Lab (OML) is a research platform managed and operated by the National Institutes of Natural Sciences (NINS). OML will reorganize the various open recruitment programs that NINS has conducted so far, and promote innovative research activities, assuming the participation of various experts not only from academia but also from industry.

At OML, shared research facilities and equipment held by NINS will be provided. In addition, research funding is provided through open recruitment research programs to form OML projects. OML projects are classified into the following multiple types according to the purpose and progress of activities.

- ① OML Project (research co-creation type)
- ② OML Project (young researcher support type)
- ③ OML Project (theme setting type)
- ④ OML Project (research start-up support type)
- ⑤ OML Project (industry-academia collaboration researcher support type)

OML projects promote the application of research methods, research equipment and facilities to new fields, and promote innovative research activities through research exchanges and inter-organizational collaboration. They are expected to further develop conventional research and propose and promote new research themes by combining existing knowledge and technologies and applying them to different fields.

Participants in OML projects can communicate across disciplines and research themes, generate new ideas, and conduct joint research. They will be provided with a forum for exchange where they can produce better research results by presenting their research results and receiving feedback from each other.

2. Overview of the Open Recruitment

In this call for proposals, we will call for applications for ① to ④.

	① OML Project (research co-creation type)	② OML Project (young researcher support type)	③ OML Project (theme setting type)	④ OML Project (research start-up support type)
Content	A project to support innovative research through inter-organizational collaboration carried out by researchers affiliated with domestic research institutes, including NINS, in cooperation with NINS employees	A project to support innovative research through inter-organizational collaboration between NINS young researchers and researchers affiliated with domestic research institutes.	A project to support innovative research related to themes set by NINS, in which researchers affiliated with domestic research institutes, including NINS, private companies, etc., cooperate with NINS employees while utilizing cross-appointments, etc. and promoting exchanges by establishing a place for practical joint research at NINS See below for FY 2024-2025 themes (*)	A project to support start-up research, workshops, and preliminary research for researchers affiliated with domestic research institutes, including NINS, to cooperate with NINS employees and launch innovative research through inter-organizational collaboration
Application Qualification	Researchers affiliated with domestic universities and public research institutes (Those affiliated with overseas universities/institutes are not eligible)	NINS young researchers under 40 years old	Researchers affiliated with domestic universities, public research institutes, private companies, etc. (Those affiliated with overseas universities/institutes are not eligible)	Researchers affiliated with domestic universities and public research institutes (Those affiliated with overseas universities/institutes are not eligible)
Amount Applied	Within five (5) million yen per year	Within five (5) million yen per year	Within ten (10) million yen per year	Within one (1) million yen per year

Research Period	Up to three (3) years	Up to three (3) years	Two (2) years	Single year
Screening Method	Documentary screening and screening interview	Documentary screening and screening interview	Documentary screening and screening interview	Documentary screening
Number of Cases Scheduled to be Accepted	Approximately 10 cases	Approximately 5 cases	Approximately 2 cases	Limited number

*Theme 1: “Analysis technology development and application using light in all wavelength regions”

We are looking for research proposals aimed at utilizing light in wavelength regions that have not been used much in the past.

Theme 2: “Basic research and development that contributes to GX (storage batteries, hydrogen, bio-manufacturing)”

Theme 3: “Basic and applied research using AI, machine learning, and mathematics”

*The theme will be reviewed every year.

3. Application Method and Application Period

Applications must be submitted electronically. (<https://www.nins.jp/nous/>).

The application page will be posted on the above site at 10:00 on November 1, 2023.

The application period is from 10:00 on November 1 (Wednesday) to 17:00 on November 30 (Thursday).

In applying, be sure to discuss the research theme, research plan, necessary expenses, etc. with a professor, associate professor, or assistant professor affiliated with NINS before submitting the application form.

For information on the research departments and researchers of NINS, please refer to the website of each institute listed in “6. Research Implementation Structure” or consult with the desk stated in “11. Others (7) Contact Information and Consultation Desk”.

Additionally, since the screening will be conducted by judges outside the field of the applied theme, try to write information that is easy to understand even for people outside the field.

4. Amount Applied

① OML Project (research co-creation type)

Within five (5) million yen per year * Personnel costs are not included.

② OML Project (young researcher support type)

Within five (5) million yen per year * Personnel costs are not included.

③ OML Project (theme setting type)

Within ten (10) million yen per year ** Can include personnel costs such as cross-appointments.

**Personnel costs may only be included if it is a cross-appointment and the effort ratio is less than 50%.

④ OML Project (research start-up support type)

Within one (1) million yen per year *** Personnel costs, equipment, and fixtures shall not be included.

5. Research Period

① OML Project (research co-creation type)

Up to three (3) years from FY 2024. However, even if the application is for multiple years, depending on the screening result, selection will be made for a single year. In this case, the application for the following year will not be blocked.

② OML Project (young researcher support type)

Up to three (3) years from FY 2024. However, even if the application is for multiple years, depending on the screening result, selection will be made for a single year. In this case, the application for the following year will not be blocked.

③ OML Project (theme setting type)

Up to two (2) years from FY 2024. However, depending on the screening result, there may be measures to adopt a single year. In this case, the application for the following year will not be blocked.

④ OML Project (research start-up support type)

One (1) year in FY 2024

6. Research Implementation Structure

If you intend to implement research from this program, be sure to include more than one (1) NINS employee in the joint researchers.

Additionally, set one (1) person among , NINS employees up as the expenses operating officer. Regarding this program, check the website of each institute for more information, etc. about the research content or those implementing the

research of each institute in NINS or consult the desk stated in “11. Others (7) Contact Information and Consultation Desk” .

NINS

<http://www.nins.jp/> or <https://www.nins.jp/en/>

National Astronomical Observatory of Japan (NAOJ)

<http://www.nao.ac.jp/> or <https://www.nao.ac.jp/en/>

National Institute for Fusion Science (NIFS)

<http://www.nifs.ac.jp/> or <https://www.nifs.ac.jp/en/>

National Institute for Basic Biology (NIBB)

<http://www.nibb.ac.jp/> or <https://www.nibb.ac.jp/en/>

National Institute for Physiological Sciences (NIPS)

<http://www.nips.ac.jp/> or <https://www.nips.ac.jp/eng/>

Institute for Molecular Science (IMS)

<https://www.ims.ac.jp/> or <https://www.ims.ac.jp/en/>

Astrobiology Center (ABC)

<http://abc-nins.jp/> or <https://www.abc-nins.jp/en/>

Exploratory Research Center on Life and Living Systems (EXCELLS)

<https://www.excells.orion.ac.jp/> or <https://www.excells.orion.ac.jp/en/>

7. Expenses

For expenses in this program, the expenses operating officer (NINS employee) shall allocate the budget. In operating expenses, the expenses operating officer will operate expenses. In addition, please follow the NINS rules, etc. in the operation of expenses.

(1) Use of the Budget

The budget (for commodity, travel, honorarium, and other expenses such as for printing and binding, communication and transport, for conferences, etc.) can be used for the implementation of this program. Regarding each expense, please use the following for reference. In addition, if necessary, it may be received by the institute to which the applicant representative and the joint researcher belong; provided however, that items that require equipment management, etc. will be managed by NINS and will belong to NINS at the end of this project.

①~③

- Expenses for goods (facility and equipment expenses and supplies expenses)
 - Expense for purchasing facilities, equipment, and supplies
- Travel expenses
 - Expenses for business trips and invitations within and outside Japan of the principal applicant and joint research
- Honorarium, etc.
 - Expenses for paying honorarium, compensation, temp agency for those who cooperate in the research (data organization, experiment assistance, translation and proofreading, provision of specialized knowledge and skills, etc.)
- Others
 - Except for the expenses above, expenses for implementing research (For example, communication expenses, transport expenses, meeting expenses (except alcohol), printing expenses, binding expenses, etc.)

④

- Expenses for goods (supplies expenses)
Expenses for purchasing supplies (supplies expenses for holding workshops, not research expenses)
- Travel Expenses
Expenses for business trips and invitations within and outside Japan of the principal applicant and joint researcher
- Honorarium, etc.
Expenses for paying honorarium, compensation, temp agency for those who cooperate in the research (data organization, experiment assistance, translation and proofreading, provision of specialized knowledge and skills, etc.)
- Others
Except for the expenses above, expenses for implementing research (For example, communication expenses, transport expenses, meeting expenses (except alcohol), printing expenses, binding expenses, etc.)

8. Screening, Etc.

The screening of this program will be decided by the NINS Research Cooperation and Liaison Committee based on documents and interviews as necessary. The screening shall be closed to the public. (If accepted, some of the information shall be disclosed.)

(1) Screening

- Document screening
The document screening shall be conducted by the NINS Research Cooperation and Liaison Committee.
- Screening interview
Based on the results of the document screening, the NINS Research Cooperation and Liaison Committee shall select the research theme to be subjected to an interview as necessary and conduct the screening interview.

(2) Screening Schedule

- Document screening
Scheduled around early February 2024
- Screening interview
Set on February 20 (Tuesday) and 21 (Wednesday)

Applicants will be notified of the topics to be covered in the screening interview in early February.

- Selection determination
Scheduled around March 2024

(3) Main Points of the Screening

In the screening in this program, screening shall be made in consideration of the following perspectives.

- ① Are the research objective and content novel and innovative based on flexible ideas and innovative methods through inter-organizational collaboration?
- ② Is the research outline concrete and is it highly feasible within the specified time frame and expected to have ripple effects in the future? Regarding the theme setting type, is the proposal in line with the theme?
- ③ Can ripple effects be expected including the “creation of new fields through the establishment of innovative technology” and “collaboration with industry” based on a medium or long-term perspective?
- ④ In light of the research objective and outline, are the research expenses reasonable?

(4) Announcement of the Screening Result

The acceptance or rejection based on the screening result will be announced in writing. (Scheduled around March 2024)

9. Research Outcome and Reporting

An implementation report of the research theme shall be submitted by March 31, 2025 and you will be asked to participate in a performance debriefing session for the entire program scheduled to be held around February to March 2025.

If publishing the outcome of this program with a research paper, etc., the acknowledgment or funding for the research paper, etc. must state that the outcome of the research is on the expense of the NINS OML Program.

※ Example:

(和文) 本研究は、大学共同利用機関法人自然科学研究機構OPEN MIX LAB事業
(*****）の助成を受けたものである。

(English) This research was supported by the grant of the NINS OPEN MIX LAB
Program (NINS Program No. _____).

The grant number is stated in the notice of acceptance.

10. Statement of the Program at the Workshop

Please be sure to clearly state that the workshop will be held with support from the National Institutes of Natural Sciences Interdisciplinary Collaborative Research Project in the workshop notice, poster, etc. In addition, other than the above description, it is not necessary to state the host, co-host, co-sponsor, supporter, etc.

11. Others

(1) MIRAI-DX

This program will also support the activities of research groups using MIRAI-DX (see below). If the research started with the use of MIRAI-DX, please put a check in the application form.

[MIRAI-DX] A “DX platform for URA collaboration” in which URAs (including occupations similar to URA) of research universities participating in the Research University Consortium are registered. The purpose is to generate joint research beyond the boundaries of fields and organizations by exchanging information with URAs of other universities using cross-sectional access to public information, etc. of registered researchers registered in various databases while the URAs support the researchers.

URAs from universities other than the Research University Consortium can also participate (limited to URAs (including occupations similar to URA; for details, please contact miraidx@nins.jp)).

Reference:

MIRAI Project <https://www.ruconsortium.jp/site/mirai-project/>

(2) Items to be submitted

Applicants for this program are required to submit the following documents after selection and before the start of research, depending on the content of the research or experiment to be conducted. In addition, except as noted below, you may be required to submit other necessary documents. In carrying out this program, if you wish to use facilities that are shared by NINS, you may be required to carry out procedures after meeting with NINS employees.

- ① Written approval from the NINS president for engaging in this program (including joint researchers)
- ② Proof of taking the research ethics education course
- ③ Confirmation of taking out the Disaster and Accident Insurance for Student Education and Research if there are graduate students among the cooperators
- ④ Radiation work certification application form
Each joint use and research and joint use and experiment require radiation worker registration after acceptance if radio isotopes are to be used at NINS.
- ⑤ Submission of the recombinant DNA experiment design
Each joint use and research and joint use and experiment are supposed to submit the experiment design from the associated division in NINS if accompanied by recombinant DNA experiments.
- ⑥ Submission of the animal experiment design
Each joint use and research and joint use and experiment are supposed to submit the experiment design if accompanied by animal experiments.
- ⑦ Human genome and gene analysis research
Each joint use and research and joint use and experiment require screening after acceptance if human genome and gene analysis research are to be used at NINS.
- ⑧ Research of physiological sciences targeted at humans and specimens obtained from humans and other relevant fields
Each joint utilization and research and joint utilization and experiment

require preliminary approval of the ethics committee of the affiliated institute if “research of physiological sciences targeted at humans and specimens obtained from humans and other relevant fields” are to be used at the National Institute for Physiological Sciences (NIPS). If there is no ethics committee in the affiliated institute, a confirmation letter stating that there is no ethical problem from the head of the affiliated institute is required. The ethics committee of NIPS will also make a screening after acceptance.

(3) Handling of intellectual property

This shall be as prescribed in Inventions by Employee Rules of the National Institutes of Natural Sciences (NINS Rules No. 12 of 2004).

(4) Handling of personal information

Personal information included in the application documents will be under tight control based on the “Act on the Protection of Personal Information Held by Incorporated Administrative Agencies, etc.” and “Personal Information Protection Rules” of NINS and used for operation purposes of this program only.

(5) Accommodation facilities

Accommodation facilities may be used in NINS if implementing joint research in each institute. For details, contact the information and consultation desk listed at “11. Others (7) Contact Information and Consultation Desk” .

(Examples of accommodation facilities)

- ① Cosmos
Lodge, NAOJ
- ② NIFS
Researcher accommodation facility (Helicon Club)
- ③ Okazaki area (NIBB, NIPS, IMS) Okazaki area accommodation facilities for researchers (Mishima Lodge and Myodaiji Lodge)

(6) Childcare support

Childcare support may be used in NINS if implementing joint research in each institute. However, the capacity is limited so contact the following desks in advance.

① NAOJ

The nursing room can be used if implementing joint utilization and joint research in NAOJ (Mitaka area only). Contact the following in advance if you wish to use it.

Employee Affairs Section, General Affairs Division, Administration Department, NAOJ

Tel: 0422-34-3654 (Direct number)

② NIFS

A part of the temporary daycare use fee of a child is supported if implementing joint utilization and joint research in NIFS. Contact the following in advance if you wish to use it.

Personnel and Payroll Section, General Affairs Division
Department of Administration, NIFS

Tel: 0572-58-2012 (Direct number)

③ NIBB, NIPS, and IMS

The nursing facility within the place of business can be used if there is an opening when implementing joint utilization and joint research in NIBB, NIPS, and IMS. Contact the following roughly 6 weeks prior to the preferred date of use if you wish to use it.

General Affairs Section, General Affairs Division
General Affairs Department, Okazaki Administration Center

Tel: 0564-55-7112 (Direct number)

(7) Contact Information and Consultation Desk

If you have any questions, consultations, etc. about this open recruitment, please contact the following.

(Contact Information and Consultation Desk)

Research Cooperation Division, Administrative Bureau, NINS

TEL: 03-5425-1318

Fax: 03-5425-2049

E-mail: nins-jr@nins.jp