

**Guidelines for Collaborative Research Project Application:
Institute for Molecular and Cellular Regulation (IMCR)
Joint Usage/Research Program for Endocrine/Metabolism (Fiscal Year 2024)**

1. Overview

Institute for Molecular and Cellular Regulation, Gunma University, has accumulated various results and bioresources, as well as established new analysis techniques through implementation of the research projects of the 21st Century Center of Excellence (COE) program, Global COE program, and the Joint Usage/Research Program for Endocrine/Metabolism.

The institute was designated as a joint research center in the field of endocrine and metabolic sciences in 2021 also from FY 2022 onwards. Therefore, we aim to continue our work towards a comprehensive understanding of biomodulation mechanisms, and research on lifestyle-associated diseases and their endocrine and metabolic mechanisms, beyond the framework of universities through joint research with domestic and foreign researchers in this field, research support, and the distribution of various research resources that we have accumulated over many years. In addition, we will aim to further develop these research areas by promoting the joint use of our facilities and by enhancing the collaboration between different fields, and the establishment of new research areas beyond endocrine and metabolic fields.

We are hence inviting researchers to participate in joint research with our institution, using our research resources and state-of-the-art facilities, as follows.

This joint research consists of the following 2 projects. In addition, we will also accept other research proposals that are expected to challenge important issues outside of the framework of these 2 projects.

2. Collaborative Research Projects

◇Bioregulatory Mechanism Analysis Project

This research project aims to elucidate the mechanism of biohomeostasis, focusing on aspects of endocrinology and metabolism that are involved in the onset of lifestyle-associated diseases.

◇Endocrine and Metabolic Disorders Project

This research project aims to elucidate the disease states caused by the breakdown of homeostasis, and the mechanisms involved.

[Outline of the Project]

In FY 2024, just as last year, in addition to the usual projects associated with endocrinology and metabolism, we are planning to accept projects on priority issues associated with diabetes and

obesity, projects by young researchers, female researchers, and foreign researchers, projects on priority issues associated with drug discovery and innovation, as well as those for a network framework of research institutions and will conduct approximately 40 joint research projects annually.

In addition to research subjects in the field of endocrinology and metabolism, we plan to actively include research projects on the human pancreas, intestinal bacteria, and organoids, and the analysis of metabolic and endocrine systems involved in every step of the life cycle, from fertilization to development to death.

3. Eligibility of Applicants

The applicant must be a researcher at a university or a public research institute, and must hold an academic degree comparable to a doctorate (Ph.D. or equivalent), or must have attained an equivalent academic qualification via research and academic publications.

*Graduate and undergraduate students are NOT eligible to apply, but are eligible to participate as collaborators to their supervisors.

Students involved in this collaborative research project are required to be covered by insurance, such as “Personal accident insurance for students pursuing education and research”.

Undergraduate students must carry out experiments under the supervision of a faculty member (assistant professor or above) of their institution, or under the supervision of a collaborating researcher of IMCR.

The period of the program is 1 fiscal year (refer to 4 below). The applicant can apply for an extension, but the maximum duration of a project from the same laboratory is 3 consecutive years, for the purpose of promoting new challenges in the field. A researcher who successfully publishes at least 1 paper as a result of research for 3 consecutive years in this Joint Research Program will be eligible to apply again after a 1-year interval, and can apply for extensions for up to 3 years. (A researcher may apply any number of times provided that the researcher produces sufficient results, such as publishing a paper, and their previous achievements of the collaborative research project will be evaluated in the application process.)

4. Period of the Program

For 1 year from April 1, 2024 to March 31, 2025.

5. Application Procedure

(1) Each principal applicant may submit 1 research project per 1 fiscal year (only 1 applicant from the same laboratory is eligible). Applicants can apply for an extension of up to 3 fiscal years, but applications will be evaluated based on the outcome of their research in the previous fiscal year.

(2) The applicant must submit “Application Form (Form 1)” and “Written Consent (Form 2)” to the General Affairs Section of IMCR by the deadline stated below. Before submission of the required forms, the applicant must check their eligibility and obtain consent from the prospective collaborating researcher of IMCR.

The required forms can be downloaded from the website of the Joint Usage/Research Center. Form 2 (Written consent) requires a signature and a stamp of the head of the department or of the dean of the institute to which the applicant belongs.

If the applicant belongs to multiple affiliations, written consent forms are required from all affiliations.

Please write “Application Form of the Joint Usage/Research Program enclosed” on the envelope.

For more information about our laboratories, researchers, and research themes, please visit IMCR’s website. (https://www.imcr.gunma-u.ac.jp/?post_type=organization)

(3) Application deadline

January 26, 2024, Japan time (applications received any later than this date will not be accepted). Late submission owing to discussions with researchers of IMCR will be taken into consideration, only if it is reported in advance by the researcher of IMCR.

(4) Applications should be sent to the following:

Institute for Molecular and Cellular Regulation
Gunma University
3-39-15 Showa-machi, Maebashi, Gunma 371-8512, Japan

6. Number of Accepted Projects

The total number of accepted projects will be approximately 40. The research projects listed below will be accepted with priority.

- (1) Research projects on diabetes- or obesity-associated topics (maximum of 2 projects)
- (2) Research projects by young (within 8 years after obtaining a degree) or female researchers (maximum of 4 projects)
- (3) Research projects by foreign researchers (maximum of 8 projects)
- (4) Research projects on drug development and innovative studies – Seeking drug seeds for lifestyle-associated diseases (maximum of 2 projects)
- (5) Research projects on issues associated with the promotion of base networks (about 2 projects)

Note: Young researchers (within 8 years after obtaining a degree) must be those who obtained their degree no more than 8 years previously as of April 1 in the year of the commencement date of the research project.

7. Selection and Notification of Results

Applicants will be screened by a collaborative research committee including external advisory members, and will be notified of the results and the amount of the research fund by the end of March, 2024.

8. Research Funds

IMCR will provide accepted projects of the Joint Research Program with research funds (for travel, supplies, freight costs) as stated below. The number of accepted projects and the funds will be adjusted depending on budget constraints.

Division	Research project	Expected number of accepted projects	Amount of research fund (maximum)
General research projects	Projects on medical genomics and metabolism or metabolic signaling research	About 22 projects	400,000 JPY
Priority project	Projects on diabetes- or obesity-associated topics	Up to 2 projects	800,000 JPY
Priority project	Projects by young (within 8 years after obtaining a degree) or female researchers	Up to 4 projects	500,000 JPY
Priority project	Projects by foreign researchers	Up to 8 projects	400,000 JPY* ¹
Priority project	Projects on drug development and innovative studies – Seeking drug seeds for lifestyle-associated diseases	Up to 2 projects	800,000 JPY
Priority project	Projects on issues associated with the promotion of base networks* ²	About 2 projects	450,000 JPY

*1 Travel expenses of foreign researchers who live abroad to visit IMCR to perform the research project will be paid separately from the research funds, only once.

*2 Research institutes that conclude a cooperative agreement with the Institute for Molecular and Cellular Regulation (IMCR) are candidates for this project.

(1) Travel Expenses

Travel expenses, a daily allowance, and accommodation charges will be paid to carry out the collaborative research, in principle for visits to Institute for Molecular and Cellular Regulation (IMCR) of Gunma University.

Note 1: The expense of economy class flight tickets will be covered. If you fly using a more expensive class than economy class, please turn in the documents that state the economy-class fare of your flight.

Note 2: When you plan to travel to IMCR, please inform the researcher you are collaborating with in IMCR regarding your travel fare in advance.

(2) Supplies Expenses

Expenses of expendable supplies required to achieve the research stated in the application form for the IMCR Joint Usage/Research Program for Endocrine/Metabolism will be covered. Fees to purchase equipment will not be covered.

(3) Freight Expenses

Freight expenses will be covered only when the transportation of samples and other materials related to the projects is necessary to accomplish the research stated in the application form for the IMCR Joint Usage/Research Program for Endocrine/Metabolism.

9. Use of Facilities

Successful applicants can use the various resources of IMCR, including experimental devices, antibodies, cell lines, and genetically modified biological models, including mice, fish, nematodes, and yeast, generally freely but under the instruction of the collaborating researchers of IMCR.

Furthermore, IMCR is surrounded by various facilities, such as Bioresource Center, Radioisotope Research Building, Laboratory for Analytical Instruments, and Medical Library. Successful applicants can use these facilities after taking the necessary instructions and obtaining permission.

References

Research resources of IMCR: https://www.imcr.gunma-u.ac.jp/?page_id=9948&lan=en

Bioresource Center: http://doujitsu.dept.med.gunma-u.ac.jp/cms/?page_id=377

Medical Library: <https://www.media.gunma-u.ac.jp/en/>

10. Annual Report Submission

Successful applicants must submit an annual progress report of their project by e-mail to IMCR within 1 month after the end of the supported period described in “4. PERIOD OF PROGRAM”. The submitted report will be published on the website of IMCR, as the outcome of Joint Usage/Research Program for Endocrine/Metabolism.

11. Attention When Submitting a Scientific Paper

When a scientific paper of research that was supported by this project is to be published, it

should contain the research number stated on the notification of acceptance issued by IMCR, and an acknowledgment of the project's support, as follows: "This work was supported by the Joint Research Program of the Institute for Molecular and Cellular Regulation, Gunma University."

At that time, please submit a separate copy to the address stated in "5. (4)" or send a PDF of the paper to the General Affairs Department of the Institute by e-mail (kk-msomu4@ml.gunma-u.ac.jp).

12. Intellectual Property Rights

In principle, the attribution of intellectual property rights will be determined by consultation between the applicant and his/her collaborator of IMCR.

13. Security Export Control

Regarding the provision of research equipment, materials, and technical instruction, or collaborative research activities with foreign researchers, procedures based on the security export control of Gunma University may be required in compliance with the relevant laws in Japan.

14. Contact

For further information regarding the IMCR program, please contact the following:

Mr. Hitoshi ONAI or Mr. Hitomi TOMIZAWA

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