# FY2025 Open Call Guidelines for Joint Research

#### Research Center for Global and Local Infectious Diseases, Oita University

The Research Center for GLOBAL and LOCAL Infectious Diseases (RCGLID) was established by Oita University on 1<sup>st</sup> October 2021 as a national joint-use facility to strategically promote the strengthening of university-wide research capabilities in infectious diseases. It also contributes to the enhancement and improvement of the research infrastructure for infectious diseases in Japan.

In collaboration with domestic and international research institutes, RCGLID links a series of areas from basic research on pathogens and infectious diseases to clinical practice, including analysis of the pathophysiology of infections caused by microorganisms, genome analysis and microbiome research, which is one of the strengths of our university. By seamlessly collaborating, we aim to build an international and regional core research platform for infectious diseases. We are now inviting applications for joint research projects as outlined below.

#### 1. Outline for Call

#### (1) Call for Proposals

We will accept applications in three categories: A) Priority Research B) General Research and C) Research Seeds.

The applicant (Principal Investigator), in cooperation with the faculty member in charge of the Center, will conduct joint research by setting up a research proposal in accordance with the theme.

# A) Priority Research

(Maximum application amount: 1,500,000 yen/proposal, FY 2025)

Research themes of this center are listed on pages 6 to 8 of this guideline which will be carried out in cooperation with the center's faculty.

Up to two proposals in each of the three research areas of Gastrointestinal Infectious Diseases, Emerging and Re-emerging Infectious Diseases, and Infectious Disease Resilience are invited as Priority Research Proposals to enhance the presence of the Center and related scientific fields and serve as the pillar of a nationwide shared-use research facility.

Research period: Up to 3 years (continued application is required at the time of each annual open call)

#### B) General Research

(Maximum application amount: 700,000 yen/proposal, FY 2025)

Research themes of this center are listed on pages 6 to 8 of this guideline which will be carried out in cooperation with the center's faculty. In particular, we will focus our support on research areas that are of international and academic importance and are strategically implemented by this center.

Research period: Up to 2 years (continued application is required at the time of each annual open call)

#### C) Research Seeds

(Maximum application amount: 300,000 yen/proposal, FY 2025)

In this category, we call for proposals in which the applicant conducts research on infectious diseases based on new ideas in collaboration with the Center's faculty members, with the expectation of expanding the scope of research and promoting collaborative research.

Applicants should consult with the Center's faculty members to determine their research topics and apply.

Research Period: 1 year

- \*1 For continuing proposal, please use the same Research Topic as the previous fiscal year. (Applicants selected for Joint Research or Research Seeds in FY2024 and wishing to apply for Priority Research will be required to submit a new application.)
- \*2 The expenses for FY2025 should be completed by the end of February 2026.

#### (2)Application Requirements

The applicant must be a researcher of a research institution, such as a faculty member of any university, or a researcher who is recognized by the director as having research ability equivalent to that of a faculty member.

We welcome applications from researchers, including young researchers, female researchers, and foreign researchers within the research organization, especially as Principal Investigators.

Graduate students are not eligible to apply. However, graduate students may be included as a member of the research team.

# (3) Research Period

You can indicate a research plan for multiple years A)Priority Research B)General Research: up to 3 years, C)Research Seeds: up to 2 years. ). However, the budget execution period is within FY2025.

Please submit Application Form every year because the selection review will be conducted annually.

# (4) Determination of the amount available and allocated for each application

A) Priority Research maximum 1,500,000JPY/FY

The Center will review the allocated amount and determine the adopted amount.

# Additions to the amount allocated

If the Principal Investigator of each proposal meets the following requirements, an additional amount may be allocated based on the application status and review results.

- \*If you are 39 years old or younger as of April 1, 2025.
- \* For female researchers

Furthermore, if joint research is conducted using the Center's facilities, and the research plan is outstanding, there is a possibility of providing additional financial support for expenses and other related costs.

#### B) General Research maximum 700,000JPY/FY

The Center will review the allocated amount and determine the adopted amount.

#### Additions to the amount allocated

If the Principal Investigator of each proposal meets the following requirements, an additional amount may be allocated based on the application status and review results.

- \*If you are 39 years old or younger as of April 1, 2025.
- \* For female researchers

Furthermore, if joint research is conducted using the Center's facilities, and the research plan is outstanding, there is a possibility of providing additional financial support for expenses and other related costs.

#### C) Research Seeds maximum 300,000JPY/FY

\*The Center will determine the amount to be allocated based on the status of applications and screening results.

The expenses that can be applied for "travel expenses" and "research expenses".

Funds will not be allocated directly to the Principal Investigators, and all accounting will be

handled by the Center.

# 2. How to Apply

#### (1) Application

Form 1: Application for Joint Research / Research Seeds Fiscal Year 2025

Form 2: Report for Joint Research Fiscal Year 2024 (\*)

※ In the case of a continuation of an application from or before FY 2024 or a new application for FY 2025 after the completion of a proposal for FY 2024, please prepare and submit a report on the results of Form 2 at the time of application. The final version should be submitted at the end of the fiscal year (submission deadline is April 30, 2025).

Please prepare Form 1 after thoroughly discussing the research topic, research plan, necessary expenses, planned period of visit to the center, etc., in advance with the faculty members in charge of this center. It is also necessary to obtain prior consent from the coresearchers. Also, a new section on collaboration status with the Center's faculty members has been added. Please ask the faculty member in charge of the Center to fill in the agreed-upon research plan for the joint research.

When submitting all application documents, please send a converted PDF file as an attachment by e-mail to the following contact person. Please keep your application no longer than four (4) pages.

# [Contact person]

Research Center for Global and Local Infectious Diseases, Oita University

E-mail: <u>glocal@oita-u.ac.jp</u> Tel: +81-97-586-5444

Homepage: https://www.oita-glocal.jp/en/index.html

#### (2) Deadline for application

5:00 p.m. 27, January, 2025 (Monday) (JST)

#### (3) Review

Applicants will be notified of the outcome by the beginning of April 2025. In the review process, the adopted amount will be determined based on the number of applicants, the contents of the proposal, the previous year's report (if it is a continuation of a proposal), and the appropriate amount for the project.

Therefore, the adopted amount may be reduced than the application amount. In addition, proposals with extremely low review scores will be rejected.

Name and affiliation of the principal investigator, the title of the research project, and the results of the research will be made public on the Center's website and in its annual report, etc., for the adopted research projects.

#### (Reference) Review perspective

- (1) Academic importance and validity of the research topic.
- (2) Validity of research plan and methods.
- (3) Originality and innovation of the research topic.
- (4) Utilization of the Center.
- (5) Contribution to the region and the world.
- (6) Validity of the use expenses.

#### 3. Responsibilities of the Principal Investigator after Adoption

#### (1) Report of Research Results

The Principal Investigator is required to submit the "Report on Joint Research Results" within 30 days after the end of the research period of each fiscal year. The results of this joint research may be presented at a result reporting meeting for evaluation purposes.

#### (2) Publication of results

In principle, the results of this joint research must be published in an academic paper or presented at an academic conference (with proceedings) collaborated with a faculty member of the Center. Please be sure to indicate in the Acknowledgments section that these are the results of the conducted joint research.

#### (English)

Example 1. This work was (partly) conducted by the joint research program of the Research Center for GLOBAL and LOCAL Infectious Diseases. Oita University (#####)

Example 2. This work was (partly) supported by the Research Center for GLOBAL and LOCAL Infectious Diseases、 Oita University(#####)

"#" means the adoption number

Please inform us of your results by e-mail, and submit one copy of the reprint (PDF is acceptable) or one copy of the poster to us: glocal@oita-u.ac.jp

We may contact you regarding follow-up surveys on the research results after the joint research period.

The submitted reports and papers will be reported in the Center's activity reports, annual reports, the Center's website, etc. In addition, we plan to publicize outstanding research findings in mass media. When publicizing with the mass media, we will make adjustments after we have inquired in advance whether or not the information can be disclosed.

# (3) Issues Relevant to the Protection of Human Right and Compliance with Laws and Regulations

If the proposed research involves such issues that require obtaining the consent and/or cooperation of third parties, consideration in handling of personal information, or actions related to bioethics and/or biosafety, including the laws, regulations, and guidelines in the country/region(s) where the joint international research is to be conducted, describe the measures and actions planned to be taken in responding to these issues in (Form1) Application for Joint Research & Research seeds FY2024 [section 8. Issues Relevant to the Protection of Human Right and Compliance with Laws and Regulations].

This provision applies to research activities that would require approval by an internal or external ethical jury, such as research involving the handling of personal information from questionnaire surveys, interviews and/or behavior surveys, including personal histories and images, handling of donated specimens, human genome analysis, recombinant DNA, and experimentation with animals.

#### (4) Handling of Intellectual Property Rights

If any intellectual property has been created through this Joint Research, please contact the Center's Faculty and Research Collaborators before filing an application, etc., and also contact the department in charge of intellectual property at the organization to which you belong. The share of rights, application procedures, etc. will be determined through discussion.

# 4. Other

# (1) Disclosure of Information

In the case that information disclosure is requested by an external party, the accepted application form may be disclosed except for the information that can be personally identified. In the course of conducting research, please mark any part that you do not want to be disclosed (such as descriptions including originality) with an underline in the application form. It will be considered at the time of disclosure.

#### (2) Personal Information, etc.

We will strive to protect personal information obtained in relation to this recruitment in accordance with the personal information protection policy of the Oita University.

These guidelines are subject to the approval of the 2025 budget, Oita University. Therefore, please note that there is a possibility that the contents and the adopted amount may change.

# Research fields of the Center's faculty members and their contact information

Name	Research fields and keyword	E-mail	
Akira Nishizono	kira Nishizono Research fields: Research for host-		
/Takaaki Yahiro	parasite relationship in Viral infections and	/ takaaki-816@oita-	
/Kazunori	development of therapeutic- and	u.ac.jp	
Kimitsuki	Preventive-strategy	/ k-kimitsuki@oita	
	Keyword: Rabies virus, SFTS virus	-u.ac.jp	
	https://researchmap.jp/read_0019201		
	https://researchmap.jp/tyahiro		
Yoshio Yamaoka	Research fields: Pathogenesis and	yyamaoka@oita-	
/Takashi	antimicrobial resistance of Helicobacter	u.ac.jp	
Matsumoto	pylori and gastric/intestinal microbiome	/ tmatsumoto9@oita-	
	Keyword: Helicobacter pylori, genome	u.ac.jp	
	analysis, antimicrobial reesistance,		
	microbiome		
	https://researchmap.jp/yoyamaoka		
Tsuyoshi Etoh	Research fields: Oncolytic Viral Therapy for	teto@oita-u.ac.jp	
	Cancer, Gastroenterological Surgery,		
	Minimally Invasive Therapy		
	Keyword: Oncolytic virus, Bacterial		
	infection biology, Antibiotics-resistant		
	Helicobacter pylori, Phototherapy,		
	Minimally invasive therapy		
	willimally invasive therapy		
Hitomi Mimuro	Research fields: Bacterial infection biology	mimuro@oita-u.ac.jp	
/Tomohiro	Keyword: Helicobacter pylori, Shigella,	/miyoshit@oita-	
Miyoshi	Oral bacteria, Gastrointestinal pathogenic	u.ac.jp	
	bacteria, Pathogenicity regulation		
	mechanisms, Host responses,		
	Antimicrobial resistance (AMR), VBNC,		
	Phage		
	https://researchmap.jp/hitomimimuro		
	https://researchmap.jp/tomohiromiyoshi		

Satoshi Komoto  Takuro Uchida	Research fields: Rotavirus, Gastroenteric viruses Keyword: Emerging and re-emerging infectious https://researchmap.jp/read0191150  Research fields: Hepatology, Hepatitis Virus Keyword: HBV, HCV, hepatitis, Liver diseases, Virus host interaction https://researchmap.jp/takurouchida	satoshik@oita-u.ac.jp  tuchida@oita-u.ac.jp
Sakirul Khan	Research fields: Comprehensive research on emerging and re-emerging viral infections (notably Rhabdoviruses, Flaviviruses, and SARS-CoV-2) and development of repurposing drugs/therapies.  Keyword: Infectious disease epidemiology; Repurposing drugs/therapies  https://researchmap.jp/MSI_KHAN	sakirul@oita-u.ac.jp
Kazufumi	Research fields: Pseudomonas aeruginosa	hiramats@oita-u.ac.jp
Hiramatsu	infection, Antimicrobial Resistance (AMR) Keyword: Antimicrobial resistant pathogen, Pseudomonas aeruginosa, Hospital acquired infection, Antimicrobial therapy other than antibiotics https://researchmap.jp/read0161428	
Naoto Uemura	Research fields: Research and development of novel therapeutics and vaccines  https://www.med.oita- u.ac.jp/clinical_pharmacology/en_kenkyu.html	uemura@oita-u.ac.jp

Masao Ogata	Research fields: Hematology,	mogata@oita-u.ac.jp		
	Hematopoietic stem cell transplantation,			
	Viral infection			
	Keyword: Human herpesvirus 6,			
	immunodeficiency-related viral infections			
	https://researchmap.jp/read0207324			
Takashi Kobayashi	Research fields: Immunology, Parasitology	kansen@oita-u.ac.jp		
	Keyword: Infectious immunity,			
	Disease model, Virulence factors			
	https://researchmap.jp/read0118220			
Emi Hifumi	Research fields: Life science,	e-hifumi@oita-u.ac.jp		
	Biotechnology, Antibody engineering			
	Keyword: Catalytic antibody, Antibody			
	subunit, Antiviral effect			
	https://researchmap.jp/hfmread0622			
Hidekatsu Iha	Research Field: Molecular Epidemiology	hiha@oita-u.ac.jp		
	and Molecular Oncology			
	Keywords: HTLV-1/STLV-1 molecular			
	epidemiological and molecular evolutionary			
	analysis			
	ATL Risk, Biomarkers, Molecular Targeted			
	Therapies.			
	https://researchmap.jp/Hidekatsu_Iha			
Kousaku Komiya	Research fields: pulmonary tuberculosis,	komiyakh1@oita-		
	Nontuberculous mycobacteriosis	u.ac.jp		
	https://researchmap.jp/kkomiya			

# <Main Facilities>

For more information, please visit the Center's website. (https://www.oita-glocal.jp/device/)

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No.	Machine name	Manufacturer Name	Model number	Main applications			
1	Light sheet fluorescence microscope	Zeiss	Lightsheet 7	Imaging of live cell, cleared organs, organoids, model small organisms, oocytes, brains, etc.	1 hour 5,000 Yen		
2	Confocal laser scanning microscope	Olympus	FV3000- L4H2-BD-3	Live cell/tissue imaging and time- lapse imaging.	1 hour 5,000 Yen		
3	Real-Time PCR system	Roche Diagnostics	LightCycler 96	Real-time monitoring and analysis of the amount of DNA amplified by PCR.	1 sample 2,000 Yen		
4	Next generation sequencer (Long-read)	Oxford Nanopore Technologies	GridION X5	Up to 5 samples can be run at once, long-read sequencing with high nucleotide sequence accuracy.	1,600 yen per hour (If the usage time is less than 12 consecutive hours) 19,000 yen per session (If the usage time is between 12 and 48 consecutive hours)		
5	Next generation sequencer (Short-read)	Illumina	iSeq 100	Short read length sequence	1 sample 5,000 Yen		
6	Single-Cell System	10x Genomics	Chromium iX	Single-cell transcriptome analysis of hundreds to tens of thousands of cells	1 sample 9,500 Yen		
7	Digital PCR system	Thermo Fisher Scientific	QuantStudio Absolute Q	Measures the fraction of negative microreactions to determine the absolute number	1 Run 2,500 Yen		
8	Biomolecular Interaction Analysis System	Sartorius	Octet RED96e System	Kinetic analysis, quantification, and affinity analysis in 96-well plates	Setting in preparation		
9	Automated capillary electrophoresis system	QIAGEN	QIAxcel Advanced System	Automated multi- capillary DNA/RNA electrophoresis system.	Setting in preparation		

<u>XHalf of the usage fee will be waived when used for the center's research conducted by RCGLID members (including joint research through this open call).</u>

# < Pathogens>

Bacteria: H. pylori, dysentery bacillus, (Mycobacterium tuberculosis)

Viruses: rabies virus, SFTS virus, rotavirus, reovirus, hepatitis B virus, hepatitis C virus,

hepatitis D virus, mosquito-borne viruses (dengue virus, Zika virus, chikungunya virus)

Parasite: Toxoplasma, Leishmania

# Regarding the handling of joint research funds by the Research Center for GLOBAL and LOCAL Infectious Diseases, Oita University

The Research Center for GLOBAL and LOCAL Infectious Diseases (RCGLID) will handle all accounting for this joint research expenditure amount, rather than allocating the budget to the selected principal investigator.

The scope of expenses is as follows

#### ■ Travel Expenses

- (1) In order to promote joint research, <u>please plan at least one business trip to RCGLID</u> for the purpose of joint use and research.
- (2) Please note that only business trips to RCGLID are allowed. However, when you present the results of your joint research results at a conference, the principal investigator and research assistants can request the travel expenses.
- (3) Travel expenses other than those of the Principal Investigator and Research Assistants can't be paid.
- (4) Travel expenses for faculty members of the RCGLID are not allowed.
- (5) Travel expenses will be calculated in accordance with the Oita University Travel Expense Regulations and will be paid in settlement (by bank transfer).
- Research Expenses
- (1) Expendables supplies

Expendables supplies are items that are directly used for joint research with RCGLID and have a unit price of less than 100,000 yen. However, items listed in (a) through (d) below cannot be purchased even if the amount is less than 100,000 yen.

- (a) Equipment and fixtures (desks, chairs, bookshelves, laboratory tables, etc.) to be provided at each institution
- (b) General-purpose office supply (computers, printers, etc.)
- (c) Cashable items such as money certificates, tablet terminals, digital cameras, etc.
- (d) Books
- (2) Printing expenses

Reprint and submission fees are acceptable, as long as they are clearly stated as having been supported by Joint Research. (Only items that can be delivered within the fiscal year)

#### (3) Service expenses

The costs of English editing, contracted analysis, postage, and conference participation (limited to cases where the results of this research are presented) will be covered.