# FY2023 Open Call Guidelines for Joint Research, Research Seeds

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

Research Center for Global and Local Infectious Diseases (RCGLID), Oita University promotes educational and research activities in collaboration with universities, research institutes, and international organizations in Japan and abroad. The center is conducting research activities and medical human resource development that can confront glocal (global/local) infectious diseases beyond national and prefectural borders.

At this center, we will elucidate the microbial infections such as virology and bacteriology, analyze their genomic information, and comprehensively elucidate the pathophysiology of infections based on the findings obtained from them. We seamlessly link a series of areas from basic research to clinical practice, including drug discovery (prevention, therapeutic drug development, and clinical trials), which is one of our strengths. In addition, we will carry out comprehensive research with an eye on global and local infectious diseases.

We are pleased to announce the following open call for applications as a joint research project of the Center.

#### 1. Outline for Call

## (1) Call for Proposals

We will accept applications in two categories: A) Joint Research and B) 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) Joint Research

(Maximum application amount: 1,000,000 yen/proposal, FY 2023)

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 listed in Appendix 1.

In particular, the Center will provide priority support for research areas of international and academic importance that are strategically implemented by the Center.

Research Period : Up to 3 years

#### **B)** Research Seeds

(Maximum application amount: 300,000 yen/proposal, FY 2023)

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 : Up to 2 years

\*1 For continuing proposal, please use the same Research Topic as the previous fiscal year. \*2 The expenses for FY2023 should be completed by the end of February 2024.

# (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)Joint Research: up to 3 years, B)Research Seeds: up to 2 years. ). However, the budget execution period is within FY2023. 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) Joint Research maximum 1,000,000JPY/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 of up to 300,000 JPY per proposal may be allocated.

\* If you belong to an overseas institution

\*If you are 39 years old or younger as of April 1, 2023.

\* For female researchers

B) 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 2023 Form 2: Report for Joint Research Fiscal Year 2022 (\*)

\*If you are applying continuously from the previous fiscal year, please prepare and submit a Form 2 report with the status as of the time of your application for the 2023 call. The final version should be submitted by April 30, 2023.

The Principal Investigator should submit the application (Form 1) after conducting a sufficient discussion with the corresponding faculty member of the Center in advance, by e-mail, or by other means.

For submission, 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. , February 8, 2023 (Wednesday) (JST)

# (3) Acceptance or Rejection

Applicants will be notified of the outcome by the beginning of April 2023. 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.

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) 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 2023 budget, Oita University. Therefore, please note that there is a possibility that the contents and the adopted amount may change.

# Appendix 1

Name	Research fields and keyword	E-mail	
Akira Nishizono	Research fields: Research for host-	a24zono@oita-u.ac.jp	
/Takaaki Yahiro	parasite relationship in Viral infections and	/ takaaki-816@oita-	
	development of therapeutic- and	u.ac.jp	
	Preventive-strategy		
	Keyword: Rabies virus, SFTS virus		
	https://researchmap.jp/read_0019201		
	https://researchmap.jp/tyahiro		
Yoshio Yamaoka Research fields: Pathogenesis and		yyamaoka@oita-u.ac.jp	
	antimicrobial resistance of Helicobacter		
	pylori and gastric/intestinal microbiome		
	Keyword: Helicobacter pylori, genome		
	analysis, antimicrobial reesistance,		
	microbiome		
	https://researchmap.jp/yoyamaoka		
Masayuki Ohta	Research fields: bariatric/metabolic	ohta@oita-u.ac.jp	
	surgery, portal hypertension, hepato-biliary		
	pancreatic surgery, travel medicine		
	Keyword: bariatric surgery, metabolic		
	surgery, intestinal bacterial flora, COVID-		
	19, travel medicine, inbound, medical		
	interpreter, plain Japanese		
	https://researchmap.jp/read0119454		
Hitomi Mimuro	Research fields: Bacterial infection biology	mimuro@oita-u.ac.jp	
/Tomohiro	/Tomohiro Keyword: <i>Helicobacter pylori</i> , <i>Shigella</i> ,		
Miyoshi	Aiyoshi Oral bacteria, Gastrointestinal pathogenic		
	bacteria, Pathogenicity regulation		
	mechanisms, Host responses,		
	Antimicrobial resistance (AMR), VBNC		
	https://researchmap.jp/hitomimimuro		
	https://researchmap.jp/tomohiromiyoshi		

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

Satoshi Komoto	Research fields: Rotavirus, Gastroenteric	satoshik@fujita-hu.ac.jp
	viruses	
	Keyword: Emerging and re-emerging	
	infectious	
	https://researchmap.jp/read0191150	
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	uemura@oita-u.ac.jp
	development of novel therapeutics and	
	vaccines	
	https://www.med.oita-	
	u.ac.jp/clinical_pharmacology/en_kenkyu.html	
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: Infections 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 fields: Molecular oncology,	hiha@oita-u.ac.jp	
	Immunobiology		
	Keyword: HTLV-1		
	https://researchmap.jp/Hidekatsu_Iha		
Kousaku Komiya	Research fields: pulmonary tuberculosis,	komiyakh1@oita-u.ac.jp	
	Nontuberculous mycobacteriosis		
	https://researchmap.jp/kkomiya		

# <Main Facilities>

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.
2	Confocal laser scanning microscope	Olympus	FV3000- L4H2-BD-3	Live cell/tissue imaging and time-lapse imaging
3	Real-Time PCR system	Roche Diagnostics	LightCycler 96	Real-time monitoring and analysis of the amount of DNA amplified by PCR, compatible with 8-tube and 96-well plates, and capable of multi-detection of FAM, HEX, Texas RED, and Cy5
4	Next generation sequencer(Long- read)	Oxford Nanopore Technologies	GridION X5	Up to 5 samples can be run at once, long-read (several kb to hundreds of kb) sequencing with high nucleotide sequence accuracy, whole genomic or transcriptome analysis
5	Next generation sequencer (Short- read)	Illumina	iSeq 100	Short read length sequence
6	Single-Cell System	10x Genomics	Chromium iX	Single-cell transcriptome analysis of hundreds to tens of thousands of cells
7	Automated capillary electrophoresis system	QIAGEN	QIAxcel Advanced System	Automated multi-capillary DNA/RNA electrophoresis system. Up to 96 samples, nucleic acid concentration detection of 0.1 ng/µL or more, digital data output
8	Biomolecular Interaction Analysis System	Sartorius	Octet RED96e System	Kinetic analysis, quantification, and affinity analysis in 96-well plates

\*1 is scheduled to be introduced in February 2023

# < Pathogens>

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

Viruses: rabies virus, SFTS virus, rotavirus, mosquito-borne viruses (dengue virus, Zika virus,

chikungunya virus)

Parasite: Toxoplasma, Leishmania

# Appendix 2

# 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) Please plan at least one business trip to the RCGLID for the purpose of joint research promotion.

(2) Please note that only the 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 100,000yen.

(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

English proofreading fee, Commissioned analysis fee, and postage is eligible