# **Application Guidelines for**

### the Cooperative Research Program in 2017

The Primate Research Institute (PRI) is recruiting researchers for the Cooperative Research Program in 2017. See details below.

#### 1. Eligibility Requirements for Applicants

Researchers, graduate students (including senior year undergraduate students who will proceed to graduate school) with Institute/University affiliations or equivalent as of April 1, 2017. Applications from graduate students are encouraged.

#### 2. Research Program Period

April 1, 2017- March 31, 2018

#### **3. Research Projects**

There are three categories of research projects. Please refer to page 4 to 6 for further details.

- **A: Planned Research Projects**
- **B: Individual Research Projects**
- **C: Continuously Accepted Research Projects**

#### 4. Application Documents

Applicants should download the specified documents through the website provided below. Please submit your application through the prospective host (corresponding) researcher at PRI after filling out the required documents.

http://www.pri.kyoto-u.ac.jp/research/kyodo2017/kyodo-j.html

\* The application format for FY2017 has been renewed. Please use the new format.

#### 5. Application Deadline

Sunday, January 15, 2017

\*Except for applicants to type C (Continuously Accepted Research Projects) who wish to begin their research after April, 2017.

#### 6. Research Allotment

All category allotments will consist of 1 principal researcher and supporting (collaborating) researchers (if needed).

### 7. Number of Applications

Applications are made for one project for one person.

#### 8. The Prospective Host (Corresponding) Researcher at PRI

Please contact the prospective host (corresponding) researcher at PRI in advance to apply for the expected research program and facilitate commencement of the research activity. For contact details, please refer to PRI web site.

If you are unsure with your research area at PRI, you need to contact the Cooperative Research Section in PRI. The section will intermediate for you and the prospective host (corresponding) researcher at PRI.

#### 9. Results

Selection will be done by the Cooperative Research Advisory Committee. We will contact successful applicants after decisions are made by the Center Management Committee. The results will be notified sometime in the middle of March or in late March, 2017.

#### 10. Graduate students, post-doctoral researchers or the equivalent

You must obtain your supervisor's consent and confirm your effort rate if you apply as a principle researcher. We may contact your supervisor for confirmation.

#### **11. Requirements after Selection**

If your research contains any animal experiments, an approval from your institute is necessary. You may be required to submit IOU, MTA and Health Certification after acceptance. You will be informed of the details by your host (corresponding) researcher at PRI.

#### **12. Contact to Current Institution**

It is the responsibility of the applicant or host (corresponding) researcher to inform the applicant's current institution regarding commencement of the research project in advance.

#### 13. Reports

The principal researchers of adopted projects must submit a "Results Reports" upon completion of the research period. In addition, you must acknowledge the Cooperative Research Program in your presentations and publications. When you publish a paper that is derived from the Cooperative Research Program in a peer-reviewed journal or as a presentation at a scientific congress, you must inform to PRI online and include a description of the Cooperative Research Program on your presentation and publications as the achievement of the Cooperative Research Program. Refer to an e-mail that informs you on how to upload them. If you have changed your affiliation and e-mail address since the last time you were adopted in this program, please inform us. If you have been adopted in the past and are applying in this year, your publication results which are informed by January 15, 2017 will be considered during the selection process.

#### **14. Information Disclosure Request**

The collected applications may be open to the public, with the exception of identifiable information. Please specify any information that you wish to be kept private by underlining the text

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in the application. This will be considered at the time of publication.

#### **15. Handling Personal Information**

Submitted personal information for this project will be protected in conformity with Kyoto

University's Privacy Policy.

Kyoto University's Privacy Policy; <u>http://www.kyoto-u.ac.jp/ja/privacy\_policy</u> The Rule of Individual Information Protection on Kyoto University <u>http://www.kyoto-u.ac.jp/uni\_int/kitei/reiki\_honbun/aw00209631.html</u>

#### **16. Accommodations**

PRI accommodation is available. For the reservation, ask your host (corresponding) research at PRI.

#### **17. Insurance**

Kyoto University has general insurance for national university corporation. The insurance effects for the damages that Kyoto University causes damage of life, body or property of the third party and is liable for the legal responsibility. This insurance does not cover any accidents which happen during the Cooperative Research unless Kyoto University has legal responsibility of the accident. Therefore, we recommend to take out accident insurance etc. by yourself.

#### 18. Further Information / Inquiries

The Cooperative Research Section in PRI Email: pri-kyodo@mail2.adm.kyoto-u.ac.jp

## **Introduction to the Cooperative Research Program**

The Cooperative Research Program consists of A: "Planned Research Projects", B: "Individual Research Projects" and C: "Continuously Accepted Research Projects". As this is one of the program of the Joint Usage / Research Center, the Expert Committee which consists of PRI faculty members and non-PRI faculty members will screen the submitted applications and the Management Center Committee will make the final decision.

You are permitted to apply the same project with the one in the previous year. In that case, you are required to explain the progress of the project and the reason why you need to continue the project in the application. It will be considered during the selection process.

In PRI, all adopted research projects are bound by the rules of the "Guide for the Care and Use of Laboratory Primates" and of the "Guidelines for the Study of Wild Primates and the Introduction of Wild-born Primates for Research" from the standpoint of animal welfare and wildlife conservation for handling primates. Thus, we accept only research projects, which follow the above-mentioned guidelines. Before you apply the Cooperative Research Program, you must fully consult with the prospective host (corresponding) researcher at PRI, and submit the Animal Experiment Plan which is approved by the institute of the applicant. Please refer to the PRI webpage about these guidelines in advance.

In case of experimentation with and observation of animals at PRI, all researchers are required to obtain an animal handling license depending on the level of invasiveness of the research before commencement of the project. The researchers are also recommended to attend educational training regarding animal experimentation at their current institutions. If you did not undertake such training at your institution before arrival at PRI, you are required to take Kyoto University's educational training thereafter. A license valid for three years will be provided only after attending lectures and practical training for animal handling. Concerning studies of animals, <u>it is essential to submit a photocopy of your negative results of the Certification of Tuberculin Test after project adoption.</u>

Following project adoption, if the applicant fails to comply with the guidelines set by PRI or Kyoto University, he or she may be imposed a penalty, including the possible withdrawal of qualifications.

We have strict regulations regarding the use of research funds (e.g. you will be required to post a postcard from a travel destination to certify that you are following your proposed schedule. Violation of regulations is subject to research cancellation and withdrawal of PRI research qualifications. The details are to be informed at the time of adoption.

Following project adoption, if the applicant would like to change the principle researcher due to unavoidable reason, submit an "Application for change of principle researcher". You are allowed to change the principle researcher in case the prospective principle researcher is the supporting (collaborating) researcher and has a qualification of the Cooperative Research. You cannont change the research content. The Cooperative Research Advisory Committee will screen the application and the Management Center Committee will make the final decision.

If the change of the principle researcher is not permitted, he / she should withdraw and submit a Results Report upon termination.

In addition, the results of the Cooperative Research Program are subject to "Kyoto University's intellectual property privacy policy". All inventions (patents, utility model rights, design rights, trademarks) stemming from research results will be handled under contractual agreement with Kyoto University.

See the following website for further information (Japanese only):

#### http://www.saci.kyoto-u.ac.jp/wp-content/uploads/2007/06/tizai\_policy070628.pdf

Large-sized equipment at PRI (MRI, CT and so on) is also available. We actively recruit research projects using these facilities. Please contact the prospective host (corresponding) researcher for details.

**A: Planned Research Projects** (can be adjusted within a maximum of 200,000 JPY. Please contact your prospective host (corresponding) researcher at PRI for details.)

This cooperative research will be carried out under close collaboration with non-PRI researchers and PRI faculty members as promoters. Each project will in principle be maintained for 2 or 3 years, and the results will be compiled at the end of study period (even "Planned Research"

can be adopted as "Individual Research" or "Continuously Accepted Research Projects" after discussion with the prospective host (corresponding) researcher).

Summary of the assigned project (in parentheses: the prospective host (corresponding) researcher; underlined: principal researcher)

Multidisciplinary study of craniodental morphology

[Prospective Schedule: 2015.4.1-2018.3.31]

(<u>Masanari Takai</u>, Takeshi Nishimura, Naoko Egi, Eishi Hirasaki,Tsuyoshi Ito) We are going to promote an multidisciplinary study on the craniodental morphology and its function mainly of primates, such as the Geometric Morphometric studies of surface morphology, the morphological analysis of internal structure using Computed Tomography (CT), kinematic analyses, and numerical simulations.

For inquiry: takai.masanaru.2s@kyoto-u.ac.jp

Integrative study of comparative development and aging in primates

[Prospective Schedule: 2015.4.1-2018.3.31]

(Masaki Tomonaga, Takako Miyabe, Misato Hayashi, Ikuma Adachi)

In this project, we promote the integrative, comparative studies on cognition, physiology and morphology, and behavior in primates at the various developmental stages, Studies with variety of species and various disciplines are welcome.

For inquiry: tomonaga.masaki.4m@kyoto-u.ac.jp

oAdvances in primate brain science by cutting-edge techniques

[Prospective Schedule: 2017.4.1-2020.3.31]

(Masahiko Takada, Katsuki Nakamura, Takao Oishi, Shigehiro Miyachi, Kenichi Inoue) This research project aims at introducing a variety of cutting-edge techniques, as represented by the use of optional and chemical genetics and the development in pathway-selective gene manipulation, and exploring how brain science in primate animals is improved and how new concepts are made up.

For inquiry: takada.masahiko.7x@kyoto-u.ac.jp

•Asian primate origins, the present and future: International collaborative research on behavioral ecology, genetics and morphology

[Prospective Schedule: 2017.4.1-2020.3.31]

(Huffman Michael, Hiroyuki Tanaka, Yamato Tsuji,

Yuzuru Hamada, Munehiro Okamoto, Takakazu Yumoto)

This program supports basic and applied multi-disciplinary scientific research into the conservation, evolution, behavioral ecology and related disciplines of macaques, langurs and other primates distributed widely across Asia. This program aims to select projects including

overseas researchers, to promote the development of primatology in range countries and to enhance research activity linked to conservation.

For inquiry: huffman.michael.8n@kyoto-u.ac.jp

#### B: Individual Research Projects (200,000 JPY maximum)

Aiming for total development of primate research, we are recruiting under the project "Individual Research", which is based on an original study designed by applicants unrelated to the above "Planned Research Projects" ("Individual Research" can be adopted as "Continuously Accepted Research Projects" after discussion with your prospective host (corresponding) researcher).

#### **C: Continuously Accepted Research Projects**

Research facilities, subjects, data, and samples are all available at PRI. These facilities, subjects, data, and samples must be used appropriately. Other travel and research expenses will not be supported. Regarding the adoption of research in the middle of the year, changes in available subjects cannot be made. Concerning the use of animals, as a rule, you are eligible to apply only for research in which multiple use of your subject animals is possible. Please contact the prospective host (corresponding) researcher about this in advance.

# Screening items regarding feasibility of research plan

5 committees at PRI screen the feasibility in terms of facility, equipment, materials and permissions. You are required to fill out some confirmation items and the progress of the application. If you do not fill out all of the required items, the screening may be delayed or not be done.

The Center Management Committee will screen the necessity and the reasonability of the planned research after reflecting opinions and results from each committee at PRI.

### **Utilization of Collection and Sampling**

In case of the use of the collection curated at PRI and samples provided (transferred or loaned) from breeding populations at PRI for the Cooperative Research Program, you are required to fill out "Plan of use, collection and utilization method of materials. Here "materials" include: 1) bodily fluids (blood, saliva, and semen), 2) internal organs, 3) muscles, 4) hair, 5) teeth and bones, 6) excreta, 7) DNA and RNA, 8) others (materials to be approved by PRI). The Study Material Committee at PRI screens the material transfer and the required procedures of your planned research. You may need to modify your application sheet if the committee requests. For details, please contact your prospective (corresponding) researcher at PRI.

Applicants must confirm their compliance with the terms and conditions stated below upon submission of their application. You may need MTA or MOU depending on your research. For details, please contact your prospective (corresponding) researcher at PRI.

Regarding the handling of biological materials or samples from breeding/housed populations at the Primate Research Institute, Kyoto University, provided for the Cooperative Research Program:

- 1. Biological materials should be used for the Cooperative Research Program only and should not be used for any other purpose.
- 2. Commercial uses are prohibited.
- 3. Biological materials or samples are not authorized for reuse and cannot be given or loaned to third parties.
- 4. The recipient shall return all biological materials to PRI at the expiration of the program or dispose of them in an appropriate manner. For continuous use over a year, he/she must apply the Cooperative Research Program each year.
- 5. PRI accepts no liability for any outcome of the use of these biological materials.

### **Animal Experimentation Plan**

In the event of planned research involving animal experiments (including blood sampling), submission of the Kyoto University Animal Experiment Plan is required. The project must be admitted as a research project that conforms to the Guide for the Care and Use of Laboratory Primates. Permission to conduct research can only be given after the project has been approved. The supervisor in charge of the experiment must be a faculty member at PRI. Therefore, please contact your prospective host (corresponding) researcher regarding application submission and detailed plans in advance of the planned experiment.

For the planned research, the Animal Experimentation Committee judges the reasonability of the research methods, and the reasonability of management and handling after daily or experimental treatments. In conformity with fundamental principles, "Unless proved otherwise, any painful treatment for human is treated as the same one for animals as well". Appropriate methods with careful consideration of reduction of pain are important. You may need to modify your application sheet if the committee requests. For details, please contact your prospective host (corresponding) researcher at PRI. The Animal Experimentation Committee strongly recommends you to submit a same application to get an approval by a screening committee at your institute.

### **Recombinant DNA or infectious agent**

Your prospective host (corresponding) researcher needs to submit an "Application for recombinant DNA experiment" for you to get an approval for use recombinant DNA in PRI. If you use infectious agent classified into BSL2 in PRI, your prospective host (corresponding) researcher must submit an "Application for handling BSL2" to the Biosafety Committee at PRI and get an approval. Therefore, consult with your prospective host (corresponding) researcher in advance. Of note, BSL3 agent is not acceptable in PRI. You may need to modify your application sheet if the committee requests. For details, please contact your prospective host (corresponding) researcher at PRI.

### **Field Research**

In the event of planned research involving field research, you must comply with "Guidelines for the Study of Wild Primates and the Introduction of Wild-born Primates for Research". You also need to comply the guideline when you collect samples, capture animals and conduct invasive experiments. The Field Research Committee screens the research method and the reasonability of the planned research in order to achieve research purpose. You may need to modify your application sheet if the committee requests. For details, please contact your prospective host (corresponding) researcher at PRI.

# **Human Experimentation**

In the event of planned research involving human experiment, you must submit "Application for human experiment", understand the aim of protection of human rights mentioned on "Declaration of Helsinki". Based on the Act on the protection of personal information held by administrative organs, your research should be permitted and admitted as safety and ethically-cared research. A research responsible person must be a faculty member at PRI. Therefore, please contact your prospective host (corresponding) researcher regarding application submission and detailed plans in advance of the planned experiment.

The Human Experimentation Ethics Committee at PRI screens the reasonability of the research methods. You may need to modify your application sheet if the committee requests. For details, please contact your prospective host (corresponding) researcher at PRI.

**\*Reference: Guidelines** 

Guideline for Care and Use of Nonhuman Primates (version 3)

http://www.pri.kyoto-u.ac.jp/research/sisin2010/guideline\_ver3\_20100615.pdf

Guidelines for the Study of Wild Primates and the Introduction of Wild-born Primates for Research http://www.pri.kyoto-u.ac.jp/research/guide-j2014.html

Declaration of Helsinki

http://www.med.or.jp/wma/helsinki.html

Ethical Guideline for Medical and Health Research Involving Human Subjects(MEXT)

http://www.lifescience.mext.go.jp/files/pdf/n1443\_01.pdf

Guidance for Ethical Guideline for Medical and Health Research Involving Human Subjects(MEXT)

http://www.lifescience.mext.go.jp/files/pdf/n1500\_02.pdf

# **Availability and Number of Primate Species**

As of 2017, the following primates are housed at PRI:

### I. Experimental Sacrifice and Surgery

1. Scheduled to be provided (M= male, F=female)

Name of Species	Weight, sex	Numbers	Name of Species	Weight, sex	Numbers
Japanese macaque ( <i>Macaca fuscata</i> )	2-15 kg	20	rhesus macaque ( <i>Macaca mulatta</i> )	2-15 kg	20
common marmoset ( <i>Callithrix jacchus</i> )	30-450 g	10	Taiwan macaque ( <i>Macaca cyclopis</i> )	M- 1, F- 1	2
hamadryas baboon ( <i>Papio hamadryas</i> )	F- 3	3	bonnet macaque ( <i>Macaca radiata</i> )	F- 1	1
owl monkey ( <i>Aotus trivirgatus</i> )		8			

Prospective Japanese and rhesus macaque study subjects are mainly 1-3 years old. For detailed information, or information regarding other species, please contact your prospective host (corresponding) researcher at PRI.

### II. Non-sacrificial Experiments (e.g. observation)

Name of Species	Number	No	ote				
Japanese macaque	37	open	(	1,200 m² •	Age, and family tree	well-known	)
(Macaca fuscata)	48	enclosure	(	850 m <sup>2</sup> •	//		)
"	43	"	(	500 m² •	11		)
11	54	"	(	730 m² •	//		)
"	47	"	(	4,600 m <sup>2</sup> •	11		)
//	34	"	(	4,900 m <sup>2</sup> •	//		)
"	45	"	Ì	3,900 m <sup>2</sup> •	//		)
11	41	"	(	3,400 m² ∙	//		)
rhesus macaque	52	"	(	530 m² •	11		)
(Macaca mulatta)	43	"	(	700 m² •	"		)

1. For behavioral observation (all socially-housed primates)

Behavioral observation of animals in open enclosures or group cages can be approved at any time. However, to avoid conflict with other researchers, please seek advice from your prospective host (corresponding) researcher in advance.

Name of Species	Numbers	Name of Species	Numbers
chimpanzee	13	long-haired spider monkey	1
(Pan troglodytes)		(Ateles belzebuth)	
agile gibbon	3	owl monkey	8
(Hylobates agilis)		(Aotus trivirgatus)	
Japanese macaque	100	common marmoset	
(Macaca fuscata)		(Callithrix jacchus)	10
rhesus macaque	50		
(Macaca mulatta)			
bonnet macaque	1		
(Macaca radiata)			

2. For drawing blood or behavioral experiments (the numbers and species are subject to change)

For convenience, three flexible categories of research are distinguished as behavioral observations, drawing blood, and behavioral experiments. Blood draws from groups used for behavioral observation should be done in September- November, during the regular health checkups, of each perspective group, conducted by PRI staff. Please note that, due to health concerns, some of the individuals in groups used for behavioral observation may be removed in the autumn of each year. In the event of planning to conduct research with numbers of subjects exceeding those listed above, justification should be provided in the "Research Plan and Methods" section of the form "Handling Plan for Living Primates" (see below).