

*Interdisciplinary Project on Environmental Transfer of Radionuclides*  
**FY2016 Application Guideline**

1. Overview of the Program

Triggered by the Great East Japan Earthquake and the subsequent tsunami on March 11, 2011, the accident at Fukushima Daiichi Nuclear Power Plant occurred and the radioactive substances released from the reactor were widely dispersed and deposited in the environment, mainly in eastern Japan. Providing the information about the transitory state of radioactive substances and the sediments which absorbed radionuclides is the responsibility of Japan. For this purpose, the studies about radioactive substances including, atmospheric resuspension, migration within land and ocean, transfer into the forest ecosystem, crop and organisms, should be highly prioritized.

We, University of Tsukuba, Center for Research in Isotopes and Environmental Dynamics (CRiED) and Hirosaki University, Institute of Radiation and Emergency Medicine (IREM), want to establish an international core institution for the environmental transfer of radionuclides in the cross-cutting way through "Interdisciplinary Project on Environmental Transfer of Radionuclides." In this project, collaborative researches are widely promoted to construct All Japan Network, for understanding the diffusion, transfer, deposition, and migration process of radioactive substances and improving prediction method. And those collaborations must provide a policy for predicting long-term contamination and reducing the radiation dose in the contaminated area.

2. Field of Research

- A) We welcome studies in development of simple but highly sensitive methods for measuring radiation, as well as new measurement methods under various environmental conditions and in fundamental research to practically apply these methods in analyses of physical properties, materials, functionality assessments, radioisotopes in environmental dynamics, and metabolic pathways.
- B) We promote studies regarding clarification of transfer mechanism of radionuclides dispersed into the environment. We especially welcome studies aiming at clarifying environmental dynamics of radionuclides accidentally released

from the Fukushima Daiichi Nuclear Power Plant; elucidating the transfer mechanism of those radionuclides to environments including forest, soil, and rivers; and developing a comprehensive model.

- C) We promote studies on mass transfer dynamics of atmosphere and water. Targeting on material transport processes in land surface, lower atmosphere, and coastal area, we especially welcome basic research aiming at elucidating phenomenon through development of new techniques of monitoring, measuring, visualizing, and numerical model. We also welcome applied studies such as future prediction.
- D) We welcome studies on developing a new analysis method for hard-to-analyze radionuclides and a new measurement method for environmental radiation/radioactivity together with studies using tracer radionuclides based on those new analysis method and measurement techniques.
- E) We promote studies on developing a monitoring method for environmental impact of radionuclides using wildlife species as indicators and studies applying such method. We especially welcome basic research regarding radiation emergency medicine including transfer of radionuclides and radiation dose assessment using chromosomal aberration.

### 3. Types of Study

#### (1) Collaborative Research for Young Scientists (Max. budget : 300,000-yen)

Collaborative research with an extramural individual researcher of up to age 35 and host researcher, listed below. Participation to the seminar organized by the project is obliged. (Joining the seminar via web meeting system is acceptable)

#### (2) Focusing Collaborative Research (Max. budget : 250,000-yen)

Collaborative research with an extramural researcher(s) and host researcher, listed below.

#### (3) International Collaborative Research (Max. budget : 200,000-yen)

Collaborative research with an extramural researcher(s), who has a post in the world outside Japan, and host researcher, listed below. The budget is able to be used for the research within Japan. Travel expenses from/to the abroad and the consumables used in the world outside Japan is NOT eligible.

#### (4) General Collaborative Research

Collaborative research using the equipment, database and samples owned by the project. The researches which do not fall under the category of (1) to (3).

Types of study		(1) Young	(2) Focusing	(3) International	(4) General
Application Deadline		May 12th, 2016 (Thu)			As needed
Declaration Date of Adoption		May 16th, 2016 (Mon)			Accepted date
Application Requirements	Research Director	Extramural individual researcher of up to age 35 (Student is also acceptable)	Extramural researcher		Extramural or inside researcher
	Research Participants	-			
	Host Researcher	Needed (Following list)			Needed *
Maximum Budget		300,000-yen	250,000-yen	200,000-yen	-
Submission of Accomplishment Paper		Needed	Needed	Needed	-

\* Inside researchers can apply without the host researcher.

#### List of Host Researchers

Field A	Keisuke SUEKI, Jun FURUKAWA, Aya SAKAGUCHI and Shinya YAMASAKI
Field B	Yuichi ONDA, Hiroaki KATO, Junko TAKAHASHI, Takehiko FUKUSHIMA, Maki TSUJIMURA and Keiko YAMAJI
Field C	Jun ASANUMA, Tomohiro SEKIGUCHI, Tetsuya SHINOZAKI, Yuko HATANNO and Tsutomu YAMANAKA
Field D	Masatoshi YAMADA, Shinji TOKONAMI and Kazuki IWAOKA
Field E	Mitsuaki YOSHIDA, Kentaro ARIYOSHI and Hirofumi TAZOE

#### 4. Application Requirements

The applicant must be a researcher who is employed full-time at a university or research institution, or a student who belongs to a doctoral course, or a person who has a position equivalent to those (including those expected to hold such a position) as of January 2016. If the applicant is a student, the approval of supervisor is needed. Check the applying types of study and if you have to work with a host researcher,

careful preparation meeting is necessary.

## 5. Research Period

From the declaration date of adoption to March 31st, 2017.

## 6. How to Apply

Download the application form from the following URL (Form 1) and fill it out by yourself or host researcher. Then submit it to the application destination via e-mail.

## 7. Application Period and Announcement of Adoption

### • (1) Collaborative Research for Young Scientists

#### (2) Focusing Collaborative Research

#### (3) International Collaborative Research

Application form (Form 1) :

<URL> <http://www.ied.tsukuba.ac.jp/ipe/ps.html>

Application period : April 18th, 2016 - May 12th, 2016

Announcement of Adoption :

Project office will contact the research director after May 16th, 2016 via e-mail.

The adopted applications will be placed on the project website.

### • (4) General Collaborative Research

Application form (Form 2) (in Japanese only) :

<URL> <http://www.ied.tsukuba.ac.jp/ipe/ps.html>

Application and Adoption : Applicants can submit the form as needed and the adoption of each application will be announced to research director individually via e-mail.

## 8. Budget for the Collaborative Research

Among (1) Collaborative Research for Young Scientists, (2) Focusing Collaborative Research and (3) International Collaborative Research, the applications selected by the judging committee are allocated the budget described in paragraph 3 Types of Study. In some cases, the budget will be lower than the amount applied for based on the judgement. The budget is able to use for travel expenses, material, consumables and etc., in conformity with the stipulation of host universities.

## 9. Presentation at Kick-off Meeting and Publication of the Achievements

Research director adopted to (1) Collaborative Research for Young Scientists, (2) Focusing Collaborative Research and (3) International Collaborative Research should join the Kick-off meeting to be held on June 10th, 2016 at University of Tsukuba, CRiED and present the objectives and plans of research (Joining the meeting via web meeting system or the presentation by the host researcher are acceptable). The interim report should be presented through Web meeting (webex: <https://www.webex.com/>) scheduled in November. Research director adopted to (1) Collaborative Research for Young Scientists should participate in the seminar organized by the project (The seminar is held once a month. Joining the seminar via web meeting system is acceptable).

After finishing the research period, research director should submit the accomplishment report by April 10th, 2017. The report will be published on the project website after mutual agreement.

## 10. Intellectual Property Right

The ownership of intellectual property right resulting from the collaborative research will be consulted among the related affiliations.

## 11. Contact and Application Destination

### (1) University of Tsukuba,

Center for Research in Isotopes and Environmental Dynamics,  
Interdisciplinary Project on Environmental Transfer of Radionuclides

University of Tsukuba,

Center for Research in Isotopes and Environmental Dynamics (CRiED),  
Office of Environmental Dynamics & Prediction Section

Address : Tennodai 1-1-1, Tsukuba-shi, Ibaraki, 305-8572 Japan

e-mail : [ipe@ied.tsukuba.ac.jp](mailto:ipe@ied.tsukuba.ac.jp)

Phone : +81-29-853-2532

FAX : +81-29 -853-2539

### (2) Hirosaki University,

Institute of Radiation Emergency Medicine,

Interdisciplinary Project on Environmental Transfer of Radionuclides

Hirosaki University,  
Office of Institute of Radiation Emergency Medicine (IREM),  
Address : Hon-cho 66-1, Hirosaki-shi, Aomori, 036-8564 Japan  
e-mail : jm5401@hirosaki-u.ac.jp  
Phone : +81-172-39-5401                      FAX : +81-172-39-5514

## 12. Others

In this collaborative research, applicants should abide by the rules and regulations at host institutions.

(University of Tsukuba, CRiED or Hirosaki University, IREM).

- University of Tsukuba, CRiED

Detailed Rules for Use

<http://www.ied.tsukuba.ac.jp/cried-2/saisoku-2/#riyou>

- Hirosaki University, IREM

Detailed Rules for Use

Please contact for details.