

**Strategic Japanese-Thailand Cooperative Program on  
“Biotechnology”  
Call for Proposals to be submitted by April 18th, 2012**

**I. General Description**

**I-1. New Scheme for Joint Funding of JST-NSTDA Research Cooperation**

Based on the MOU dated on 20 May, 2009, Japan Science and Technology Agency (hereinafter referred to as “JST”) and National Science and Technology Development Agency (hereinafter referred to as “NSTDA”) have agreed to establish a new scheme for joint funding of JST-NSTDA cooperative research projects. After consultations between JST and NSTDA, Biotechnology has been selected as the field of research for which the joint funding scheme will be applied to.

**I-2. Aim of Program and Research Field**

The aim of the program is to strengthen the collaboration between Japan and Thailand within the field of Biotechnology to achieve world-class scientific results, leading towards new innovative technologies.

In the current call for proposals, the National Center for Genetic Engineering and Biotechnology (BIOTEC), one of NSTDA’s centers, will implement this scheme on behalf of NSTDA. Priority would be given to the following research areas within Biotechnology:

1. Microbial Biotechnology
  - i) New technology to increase production of recombinant protein or bioproducts from cell, envisaging pilot scale verification for reducing production time and cost
  - ii) New technology to improve heterologous expression system for multi-gene expression
2. Agro Biotechnology
  - i) Utilization of biotechnology for staple crop improvement
3. Functional Genomic Technology e.g.,
  - i) New technologies for large-scale analysis of genome data and functions of genes/gene products
  - ii) Novel analytical technologies for characterization of gene/gene groups, and high-throughput genome analysis with high accuracy and precision

**I-3. Prospective Applicants**

JST and BIOTEC shall invite Japanese and Thai researchers to submit proposals for cooperative research projects in the research areas described above. All applicants must fulfill national eligibility rules for research grant application. An important criterion of the proposed collaboration is that it should build on and reinforce already on-going research activities in each research group and contribute significant added value to these. Researchers from the industry may participate in the joint collaboration.

**I-4. Financial Support**

JST and BIOTEC plan to support cooperative research projects including sending and inviting researchers to the counterpart country.

JST supports expenses for Japanese researchers, and BIOTEC supports expenses for Thai researchers.

## **II. Support by JST/BIOTEC**

JST and BIOTEC agree to fund about three (3) bilateral projects for this Call in 2012.

### **II-1. Budget for a Cooperative Research Project**

Due to budget limitations of this program, amounts will be adjusted each year. Expenses for facilities and equipments may be requested, in principle, only for the first fiscal year.

#### **II-1.1 JST**

Budget of a project may differ in each year, depending on the content of activities, but the total budget for the Japanese researcher over a full 3-year period (i.e., 36 months) should not exceed 15 million yen in principle. (Example: a proposal may envisage a budget of 4 million yen for the first year, 6 million yen for the second year and 5 million yen for the final year.)

##### *II-1.1.1 Funded expenses*

Funding provided within this call is intended to enhance the capacity of the applicants to collaborate. Funding will therefore be provided mainly in support of the collaborative activities and may include some of the local research that is necessary for the collaboration.

#### (1) Expenses for research exchanges

##### 1) Travel expenses

In principle, travel expenses should be based on the rules of the institution to which the research leader belongs.

JST provides travel expenses only for the Japanese research members.

##### 2) Expenses for holding symposiums, seminars and meetings

#### (2) Expenses for research activities

##### 1) Expenses for facilities, equipment and consumables

##### 2) Expenses for personnel

- Stipend or salary for a PhD student, or salary for a post-doctoral fellow. (for Japanese researchers)

##### 3) Others Expenses for creating software, renting or leasing equipment, transporting equipment, etc.

#### (3) Overhead expenses

Overhead expenses as per JST norms

#### (4) Expenses not covered/funded in the program

No expenses stated below shall be covered under this program:

- 1) Expenses related to acquiring real estate or constructing buildings or other facilities
- 2) Expenses related to procurement of major equipment
- 3) Expenses related to dealing with accidents or disasters occurring during cooperative research periods
- 4) Other expenses unrelated to implementation of this cooperative research project

## II-1.2 BIOTEC

Budget of a project may differ in each year, depending on the content of activities, but the total budget for the Thai researcher over a full 3-year period (i.e., 36 months) should not exceed *5 million Baht* in principle.

### *II-1.2.1 Funded expenses*

Funding provided within this call is intended to enhance the capacity of the applicants

To collaborate. Funding will therefore be provided mainly in support of the collaboration vectors and of the local research that is necessary for the collaboration. Projects will be funded for up to three years, allowing for the following items:

- Stipend or salary for a PhD student, salary for a post-doctoral fellow (i.e. a temporary position for up to 3 years, financed according to national gross wages). In countries where national rules allow it, the salary of the young researcher may be included.
- Consumables
- Small equipments
- Travel and visiting costs.
- User charges for facilities.

All budget items must conform to the national rules relevant for each applicant.

## II-2. Cooperative Research Period

The cooperative research period shall be 3-years (i.e., 36 months) in total, beginning from the start date.

## II-3. Details of Support

This program is designed to support additional expenses related to cooperation with a Thai counterpart for a Japanese researcher or with a Japanese counterpart for a Thai researcher, such as expenses for travel and/or conducting seminars/symposiums, with the precondition that the main research infrastructure is already ensured by each research group.

### *II-3.1 Contract between Applicant and JST*

Support will be implemented according to a contract for commissioned research entered between JST and a university or research institute, etc. (hereinafter referred to as the "institution").

The contract for commissioned research will be renewed each year over the cooperative research period.

Since the contract is concluded on condition that all administrative procedures related to this project be handled within the institution, the research leader should consult with the department in charge at his/her institution.

As for the contract between the Japanese institution and JST, it stipulates the Article 19 of the Industrial Technology Enhancement ACT (Japanese version of the Bayh-Dole Act) and the Article 25 of the ACT on Protection of the Creation, Protection and Exploitation of Content (tentative translation) shall be applied to all intellectual property rights (patents, utility model or design rights, rights to programs, databases and other intangible property and know-how, and so on) generated as a result of this project, and that these can be the properties of the institution with which the research leader is affiliated.

#### *II-3.2 Contract between Applicant and BIOTEC*

The contract between Thai institution and BIOTEC will follow the R&D Funding Contract of BIOTEC and the rules and regulations under the National Science and Technology Development Committee will be applied to all intellectual property rights (patents, utility model or design rights, rights to programs, databases and other intangible property and know-how, and so on.)

#### *II-3.3 Contract between Researchers*

If a contract for cooperative research is necessary for implementing actual research cooperation, such a contract should be concluded between the Japanese institutions and the Thai institutions. It is strongly advised, though not required, that appropriate discussions of the issue of rights regarding intellectual properties with among the concerned parties take place, in order to ensure good collaboration. If an agreement is concluded, it should be reported in the application.

### **III. Application**

The Japanese and Thai applicants shall write a common application (Form E) that shall be handed in both to JST and BIOTEC in parallel. The application shall be written in English. For the Japanese applicants, a Japanese version of the application is also required. For the Thai applicants, BIOTEC proposal form in Thai language must be completed in either Thai or English language.

The application shall include:

- a) Project description including how collaboration will be carried out, with clear statements of what roles Japanese and Thai researchers respectively will play respectively in the project;
- b) Description on the expected outcome of the proposed project, scientifically as well as in terms of its relevance for the industry and society;
- c) Description on the ongoing activities and specific advantages of the Japanese and Thai groups respectively, which form the basis for the proposed joint project;

- d) Description on the expected added value from the proposed joint project, including how the competence, technology and other resources in each group complement each other;
- e) Description of how the project is expected to help strengthen research cooperation between Japan and Thailand over the longer term;
- f) Description on the added value expected from the multidisciplinary approach in the proposed joint project; and
- g) Discussion on how the proposed joint project compares with other comparable activities worldwide.

### III -1. Application Forms

The Japanese and Thai applicants shall write a common application (**Form E**) in English. This form includes the following items:

- Form 1E Application outline (title of cooperative research project, names of research leaders, cooperative research period)
- Form 2E Summary (keywords, goals, approach and expected outcome)
- Form 3E Information on research leaders (their CVs\*)
- Form 4E Name list of individuals committed to the cooperative research project in Japan and Thailand
- Form 5E Description of the cooperative research project including the points stated above *-maximum of 6 pages-*
- Form 6E Plan for the cooperative project
- Form 7E Main scientific publications or patent applications by the Japanese-side research leader in the past 5 years
- Form 8E Main scientific publications or patent applications by the Thai-side research leader in the past 5 years
- Form 9E Budget plan for the project

*\* The description shall include short Curriculum Vitae (CV) from both Japanese and Thai research leaders, which include basic information on education, past and present positions and membership of relevant organizations/associations. Each description should not be more than 1/2 page A4.*

Japanese researchers shall submit to JST the above-mentioned **Form E** and **Form J**, which is an application form in Japanese.

Thai researchers shall submit to BIOTEC the above-mentioned **Form E** and **BIOTEC Proposal Form** which can be prepared in Thai or English.

### III-2. Preparation of Application Forms

Applicants should fill in the particulars in all the application forms listed in above 1.

### III-3. Submittal of Application Forms for Japanese and Thai Applicants

Applicants should send the application forms by April 18th, 2012.

Japanese applicants must electronically submit their application forms to JST by 17:00 (Japanese Standard Time), through online application system e-Rad (<http://www.e-rad.go.jp/>).

For Thai applicants, 5 (Five) papers in BIOTEC proposal form format and 1 (one) electronic format based on Microsoft word should be submitted to BIOTEC Human Resources and Platform Technology Development Division.

## **IV. Evaluation of Project Proposals**

### **IV-1. Evaluation Procedure**

Committees consisting of experts selected by JST and BIOTEC respectively will evaluate all proposals. Based on the results of the evaluation, JST and BIOTEC will make a common decision regarding funding of selected proposals.

The members of the program committee in Japan and Thailand will be selected after the proposals have been received.

### **IV-2. Evaluation Criteria**

The following general evaluation criteria will apply to each proposed project:

- 1) Conformity with Program Aims and Designated Research Fields  
The proposed activity shall conform to the aims of the program and the research fields that the program designates. In addition, the proposed activities shall be supported by the applicants' utilizing their resources available.
- 2) Capability of Research Leaders and Current Research Activities  
The research leaders in both countries shall have the insight or experience (or the potential, for younger researchers) necessary for pursuing the activity and the ability to manage the cooperation and reach the project goals during this program's period of support.
- 3) Effectiveness and Synergy of the Joint Research Activity  
The proposed research activity shall be advanced, novel and internationally highly evaluated. The activity shall have a significant impact on the science and technology development or shall contribute to solve the internationally common issues. The activity shall create the innovative technological seeds to trigger the new industrial needs in the future.  
The activity to produce the synergy effects from the collaboration is especially desirable. For example, the activity which can acquire the knowledge, skill and application from the counterpart, the activity which can utilize the special resources and the geographical features of the counterpart, and so on.
- 4) Validity of Research Plan  
The research activity and the expense for it, including the sharing of research activity with the counterpart research institute, shall be appropriately planned.
- 5) Effectiveness and Continuity of Exchange  
The proposal shall contain activities to enhance sustainable research exchange. The followings are examples.

- Nurturing the young researchers through the exchange stay.
  - Sustainable development of research exchanges with the counterpart country initiated by this activity.
  - Expanding the international research networks among the researchers including the researchers other than the research leader and members of this activity.
- 6) Validity of Exchange Plan  
The research exchange activity and the expense for it shall be appropriately planned.

#### IV-3. Announcement of Decision

The final decision regarding supported projects will be notified to the applicants around July 2012.

### **V. Responsibilities of Research Leaders After Proposals are Approved**

After the proposal has been approved, research leaders and their affiliated institutions shall observe the following when carrying out the cooperative research and utilizing supported expenses.

#### V-1. Annual Progress Report (JST)

At the end of each fiscal year, Japanese research leader shall promptly submit a progress report on the status of research exchange, and the institution with which the research leader is affiliated shall promptly submit a financial report on supported expenses to JST.

#### V-2 Six-Month Progress Report (BIOTEC)

Thai researchers under BIOTEC funding support must follow BIOTEC requirement for submission of six-month progress report which includes financial report in order to report the status of research program and to request for transfer of fund for the next phase.

#### V-3. Final Report

After completion of the period of international research exchange, research leaders shall submit a final report on the research exchange activities and a financial report to JST and BIOTEC within one month. The final report shall include a general summary (maximum five A4 pages) compiled jointly by both the Japanese and the Thai research groups. In addition, Thai researcher shall submit a full final report, to be prepared according to BIOTEC final report format and guideline, to BIOTEC.

If papers describing results of research exchange are presented to academic journals, societies and so on, which is expected by JST and BIOTEC, please attach copies of such papers separately to the final report.

Japanese applicants should contact the following for further information:

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