

# Call for proposals for the SACLA/SPring-8 Basic Development Program

January 27, 2025  
RIKEN SPring-8 Center

## 1. Introduction

As the first compact X-ray free-electron laser (XFEL) facility, SACLA has been providing ultrabright femtosecond X-ray pulses for users since March 2012, enabling world-leading research in various fields of science. Development of new capabilities is needed for continuing exploration of scientific frontiers.

The SACLA/SPring-8 Basic Development Program invites proposals from a wide variety of users for the development of new instruments to promote innovative science leveraging SACLA's unique capabilities. Since FY2021, the targets of the Program have been extended to the development of new instruments for SPring-8.

## 2. Outline

With this Program, the RIKEN SPring-8 Center (RSC) encourages users to submit proposals for the development of new instruments or measurement systems.

As categorized below, we will accept new proposals and also continued proposals to extend the ones accepted for the previous year. However, starting with the proposal call for FY2025, there are some restrictions on proposals submitted in Category B, as described in Section 3.

- [Category A] New proposals
- [Category B] Continued proposals

RSC expects to approve several proposals. For proposals that are fully approved (see "Accept I" in Section 4-2), RSC will develop detailed plans considering budget and feasibility, and then proceed with the development while maintaining close collaboration with the proposal group. Furthermore, the proposal group and RSC will work jointly on the commissioning of the instruments at SACLA and SPring-8. Finally, the instruments will be widely available for general user experiments. JASRI may provide support for the development.

For partially approved proposals ("Accept II"), the proposal group and RSC will conduct a feasibility study and compile a report. JASRI may also provide support for the investigation.

Please refer to Section 5 for additional details about the program.

## 3. Eligibility

Anyone can apply to the program. However, there are some restrictions for the continued proposals as follows.

- Extension of proposals accepted in the Accept I category in the previous fiscal year:  
Proposals may be able to be extended only once in the Accept I category. If the proposals have been accepted in the Accept I category in the previous two consecutive years, they are not eligible for continuation in the following year.
- Extension of proposals accepted in the Accept II category in the previous fiscal year:  
If the new proposals will be accepted as continued ones, the category will be limited to Accept I. No proposals will be accepted in the Accept II category for consecutive years.

## 4. Evaluation

### 4-1. Method

The Evaluation Committee for the SACLA/SPring-8 Basic Development Program, which consists of RSC members and external experts, will evaluate proposals based on reviews of the documentation provided. Additional online hearings may be held for some selected proposals if necessary.

### 4-2. Results

There are two categories for acceptance:

- [Accept I] Full approval to proceed with development of the instruments
- [Accept II] Partial approval – feasibility studies are required

If we receive similar proposals from different groups, we may merge them into a single theme.

### 4-3. Evaluation criteria

#### [Category A]

- Uniqueness of capabilities to be achieved with the proposal
- Originality and superiority over existing schemes
- Potential to contribute significantly to scientific research
- Convincing explanation of feasibility
- Applicability to general users (instruments that would be permanently dedicated to only the proposal group will not be approved)

#### [Category B]

- Validity and necessity to continue with the proposal

## 5. Program details

### 5-1. Budget

RIKEN will bear all costs of development – there is no allocation of budget to the institutions to which the proposal groups belong for the development and related travels. The instruments and measurement systems developed in this program will be managed by RIKEN as RIKEN's assets.

The estimated budget for each proposal should not exceed 25,000,000 Japanese Yen (about US\$150,000). Please provide a cost estimation in the application document for reference. In the event your estimation exceeds that limit, please submit an inquiry to [saclainst@spring8.or.jp](mailto:saclainst@spring8.or.jp) in advance.

### 5-2. Term

May 2025 (plan) to March 2026 (i.e., the end of FY2025)

\*We plan to continue this program into FY2026 (i.e., April 2026 to March 2027), contingent on budget availability.

### 5-3. Form

After proposals have been approved, all members of the proposal group shall become visiting scientists of RSC and conduct this program as RIKEN visiting scientists. Before conducting the accepted development, the PI and

participants of the proposal group shall secure consensus from their affiliated institution regarding working as RIKEN visiting scientists.

#### 5-4. Disclosure

For approved proposals, information including titles and proposal groups will be announced on the SACLA website. The progress report should be submitted at the end of the term. In addition, PIs may be requested to report the progress during the SACLA Users' Meeting 2026 (planned for March). Results achieved in this program will also be posted.

### 6. Application

#### 6-1. Format

- (1) The application form will be provided upon request. Please contact [saclainst@spring8.or.jp](mailto:saclainst@spring8.or.jp) regarding the application form.
- (2) There is no limit on the number of pages in the proposal, though concise and clear explanations are highly recommended.

#### 6-2. Submission

- (1) Please submit the proposal to [saclainst@spring8.or.jp](mailto:saclainst@spring8.or.jp) in PDF format.
- (2) The application document must be submitted by the PI.
- (3) Prior to submission, the PI must secure approvals regarding the application with the institutions of all proposal members.
- (4) We will treat proposal documents as confidential material.

#### 6-3. Deadline

Sunday, March 2, 2025.

### 7. Schedule (tentative)

- January 27, 2025: Open the application process
- March 2, 2025: Close the application process
- Late March – Early April 2025: Online hearing for some selected proposals (if necessary)
- Late April 2025: After evaluation, we will send the results to the PIs. For accepted proposals, we will provide details regarding RIKEN's visiting scientists and the start of the program.
- May 2025: Start of the program
- March 2026: Deadline for the progress report, SACLA Users' Meeting at SACLA

### 8. Contact

Submission of proposals and inquiries about the program should be addressed to:

E-mail: [saclainst@spring8.or.jp](mailto:saclainst@spring8.or.jp)

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