

Call for proposals for the SACLA Basic Development Program

August 9, 2018

XFEL Research and Development Division

RIKEN SPring-8 Center

1. Introduction

SACLA has been able to substantially increase beamtime for users in excess of 6,000 hours per year after inaugurating a soft X-ray FEL beamline (BL1) in July, 2016 and commencing simultaneous operation of two hard X-ray FEL beamlines (BL2 and 3) in October, 2017. While use of the existing instruments and techniques has increased, users are increasingly demanding new XFEL capabilities to explore scientific frontiers.

The SACLA 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 characteristics.

2. Outline

With this Program, the XFEL Research and Development Division (XFEL Division) of RIKEN SPring-8 Center (RSC) encourages users to submit proposals for the development of new instruments. Proposals are classified into two categories:

[Category A] New experimental instruments

[Category B] Enhanced capabilities for the XFEL and optical lasers (including development of new X-ray optical devices)

The XFEL Division expects to approve several proposals. For proposals that are fully approved ("Accept I" in Section 3-2), the XFEL Division will arrange detailed plans considering budget and feasibility, and will proceed with development while maintaining close collaboration with the proposal group. Furthermore, the proposal group and the XFEL Division will work jointly on the commissioning of the instruments with XFEL at SACLA. 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 the XFEL Division will conduct a feasibility study and compile a report. JASRI may also provide support for the investigation.

Anyone can apply to the program. Please refer to Section 4 for details about the program.

3. Evaluation

3-1. Method

The Evaluation Committee for the SACLA Basic Development Program, which consists of RSC members and external experts, will evaluate proposals based on reviews of the documentation provided.

3-2. 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.

3-3. Evaluation criteria

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

4. Program details

4-1. Budget

RIKEN will bear all costs of development – there is no allocation of budget to the institutions of the proposal groups. Instruments developed in this program will be managed by RIKEN as RIKEN's assets.

The estimated budget for each proposal should not exceed US\$200,000. Please provide a cost estimation in the application document for reference. Please submit an inquiry to saclainst@spring8.or.jp in the event your estimation exceeds that limit.

4-2. Term

October 2018 (plan) to March 31, 2019 (the end of FY2018)

*We plan to continue this program into FY2019 (i.e., April, 2019 to March, 2020), contingent on budget availability.

4-3. Form

After proposals have been approved, all members of the proposal group shall become visiting scientists of the Beamline Research and Development Group, XFEL Division, RSC, and conduct this program as RIKEN visiting scientists. Prior to conducting the proposal, the PI and participants of the proposal group shall secure consensus from their affiliated institution on working as RIKEN visiting scientists.

4-4. Disclosure

For approved proposals, information including titles and proposal groups will be announced on the SACLA website. Results achieved in this program will also be posted.

5. Application

5-1. Format

- (1) Please submit requests to saclainst@spring8.or.jp regarding the format of the application.
- (2) There is no limit on the number of pages in the proposal, though concise and clear explanations are highly recommended.

5-2. Submission

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

5-3. Deadline

September 28 (Fri), 2018

6. Schedule (tentative)

- August 9 (Thu), 2018: Open the application process
- September 6-7 (Thu-Fri): SACLA Users' Meeting @SACLA
(Explanation on this program will be presented)
- September, 28 (Fri): Close the application process
- October~: Evaluation and notification of results to the PIs. For accepted proposals, we will provide procedures regarding RIKEN's visiting scientists and the start of the program.

7. Contact

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

E-mail: saclainst@spring8.or.jp

Beamline Research and Development Group, XFEL Research and Development Division, RIKEN
SPring-8 Center