**Proposal Application Template**

**[General Proposals and Graduate Student Proposals   
Intended to Be Reviewed in Structural Biology Field]**

**This proposal application template can be used to draft your proposal application details and then copy and paste them into the online application.**

**Please check if your proposal is “Complementary Use Program”**

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**[PAGE 1: Basic Information]**

0. Term (required)

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| --- |
| Please select “20xxA” or “20xxB.” |

1. Title of Experiment (required) (70 word limit)

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2. Review Field (Method)

• [Table of Review Field](http://user.spring8.or.jp/ui/wp-content/uploads/reviews_e.pdf) (fixed)

|  |  |  |
| --- | --- | --- |
| Group: Please select “Structural Biology.” | Subgroup1: | Subgroup2: |

3. Beamline / Equipment (Select from the "[Table of Equipment](http://user.spring8.or.jp/ui/wp-content/uploads/equipment.pdf)")

|  |  |  |
| --- | --- | --- |
|  | Beamline | Equipment |
| 1st Choice  (required) | Please select “PX-BL.” |  |
| 2nd Choice |  |  |
| 3rd Choice |  |  |

4. Research Area

• Research Area (Select from the "[Table of Research Areas](http://user.spring8.or.jp/ui/wp-content/uploads/research_area_e.pdf)")

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| --- | --- | --- |
| Group  (required) | Subgroup2  (required) | Comment for Other |
|  |  |  |

• Research Area Keywords (30 word limit)

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5. Number of Shifts Requested (required) (Justify the number of shifts by providing basis of the estimation at Item #12: How you calculated the overall beamtime requested.)

If you need assistance in calculating how many shifts are necessary for your research, please contact a respective Beamline Scientist.

\_\_\_\_ shift(s) x \_\_\_\_ run(s) + \_\_\_\_ shift(s) x \_\_\_\_ run(s) + \_\_\_\_ shift(s) x \_\_\_\_ run(s)

6. Operating Mode (required):

( ) any

( ) Equal interval mode (A-, B- or C- mode: not specifically)

( ) Specific mode required (Number in order of preference below.)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Mode (in order of preference: A, B, C, D, E, F, G, H)\* | 1 | 2 | 3 | 4 | 5 | Other: |
|  |  |  |  |  |

\*The D- and E-modes are operated in research terms A only, while the F- and G-modes are operated in research terms B only.

(Please refer to the following link for the details: <https://user.spring8.or.jp/?p=15836&lang=en>)

**[PAGE 2: Project Team Members]**

7. Project Team Members: User Card Number, Name, and Affiliation

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Project team members as well as project leaders are required to complete user registration in advance. If your team members have chosen "Do not allow" for their account settings in the User Registration page, their user card numbers are not displayed in search results and you cannot find them; therefore, all users are strongly encouraged to choose "Allow." If necessary, please ask your team members to change their account settings (Log in to My Page > “Edit My Details” link in the top right hand corner). The account settings can be changed even after proposals are approved for beamtime.

**[PAGE 3: Known Safety Hazards & Measures to Be Taken]**

8. Known Safety Hazards & Measures to Be Taken

8-1 Does your proposed research involve any of the following?\*1〜5

|  |  |
| --- | --- |
| ( ) None | ( ) High pressure gas cylinder from the outside of SPring-8/SACLA |
| ( ) Radioisotope |
| ( ) Radiation generator: installation, modification, change of purpose or specifications |
| ( ) Internationally controlled materials (nuclear source/fuel materials) |
| ( ) Installation of devices/equipment regulated by law |
| ( ) Chemicals regulated by law |
| ( ) Invasive alien species |
| ( ) Specified risk materials (SRM) from cattle |
| ( ) Prohibited imports regulated by the "Plant Protection Act" |
| ( ) Recombinant DNA |
| ( ) Human materials |
| ( ) High-energy laser system from the outside of SPring-8/SACLA |
| ( ) live animals (mammals, birds, or reptiles) |
| ( ) specific biological samples/biohazards (agents of biological origin that have the capacity to cause ill-effects in other organisms) |

1. If yes, you will be required to submit additional forms with your proposal application.
2. High-pressure gas manufacturing plant Local ventilation/gas supply and exhaust system Crane.
3. Chemicals regulated by law:

- Specific substances regulated by the "Act on the Prohibition of Chemical Weapons and Control of Specific Chemicals"

- Specified poisonous substances regulated by the "Poisonous and Deleterious Substances Control Law"

- Substances for which manufacturing is prohibited, asbestos, etc. under the "Industrial Safety and Health Law"

- Narcotics, stimulant drugs, hemp (gum), opium, and their raw materials, psychotropic drugs, and no dangerous substances of 1/5 or more in quantity specified by the "Fire Service Act"

1. Class 4, Class 3B and Class 3R lasers specified by IEC 60825-1 standard.
2. pathogenic microbes (incl. infectious nucleic acids, plasmids, prions), parasites, and the toxic substances, carcinogens, and allergens produced by them that can cause harm to humans, livestock, and farm/marine products.

8-2 What SPring-8 equipment would you like to use? (90 word limit)

If you wish to use the laser system installed in SPring-8, enter “SPring-8 Laser System.”

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8-3 Details of samples (required)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name of Substance\*6 | State/  Figure\*7 | Qty. & Unit  (SI)\*8 | Hazards\*9 | Purpose of Use\*10 | Containment measure and disposal method | Prevention of Hazards | Risk Level\*11 | Remarks |
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1. Use general names, structural formulas, or compositions (XAFS) and do not use abbreviations or acronyms.
2. Capillary (powder), cylinder (gas), plate (crystal), metal foil, tablet, bulk, etc.
3. SI Unit.
4. Poison, deadly poison, organic solvent, selected chemicals, dangerous goods, etc.
5. Sample, for measurement, for cleanser, for coolant, for tranquilizer, etc.
6. Risk assessment result. For details, click here (<http://user.spring8.or.jp/s/risk-assessment-e>). Choose “N/A” for chemical substances which are exempted from the regulation.

8-4 Equipment that you will bring to SPring-8

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| --- | --- | --- |
| Equipment | Specifications\*12 | Safety measures |
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1. Voltage, ampere, pressure, temperature, etc.

**[PAGE 4: Abstract]**

9. Describe the significance, purpose, features and expected results of the proposed research, including the reason why you need SPring-8 for the research. (required) (1,200 word limit)

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| At the beginning, please give a brief description on how this proposal is essential for science in this field. (Max. about 200 words). |

10. Provide the progress made regarding the proposed research, the relationship with the proposal(s) approved in the past and with another proposal(s) being applied, if any, and your previous experience with similar experiments. (270 word limit)

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**[PAGE 5: Experimental Details]**

11. Experimental details (required) (sketch of setup, measurement method, detector, concentration of samples, etc.). (1,350 word limit)

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| Sketch of setup, measurement method, detector, concentration of samples, etc.  State that the use of both, beamlines as well as CryoTEMs, is planned. In addition, a description of how protein sample and protein crystals, even if protein crystals have not been obtained yet, are to be prepared for measurements must be provided.  When using Automatic Data Collection, indicate the use and describe the measurement method and samples. |

12. Reasons for your choice of beamline. (required) (140 word limit)

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| State the reason why the beamline(s) is required for your measurement. |

13. Energy/wavelength or Operating conditions required. (135 word limit)

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| State the reason why the beamline(s) is required for your measurement. |

14. How you calculated the overall beamtime requested. (required) (900 word limit)

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| As a reference, provide the experimental methods and the number of shifts required to use the first-choice beamline (selected from among PX-BLs) for this term and next term, and describe how the number of required shifts was calculated. Describe the details for CryoTEM experiments as needed. |

**[PAGE 6: Publication]**

15. List the project leader's publication(s) associated with the proposed research up to three (Place an asterisk next to the publications resulting from research at SPring-8.) and describe each within 50 - 290 words. (900 word limit)

Publication (1) required

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| --- |
| Refereed journals related to the proposal can be copied into the field from the "List of Refereed Publications Related to You."  (ORCID iD)  ORCID iD will be used to understand the project leader’s past research activities which is not directly related to the proposed research. If the project leader’s ORCID iD is available, please register it at Account Information. |

Publication (2)

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Publication (3)

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**[PAGE 6’: Ph.D. Advisor] (Graduate Student Proposals only)**

16. Information of advisor

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| --- | --- |
| User Card Number of Ph.D. Advisor |  |
| Name of Ph.D. Advisor | Automatically filled |
| Affiliation of Ph.D. Advisor | Automatically filled |

**[PAGE 6’’: Complementary Use Program\*]**

\* If applicable.

17. Complementary Use Facility (Check all applicable facilities.)

|  |  |
| --- | --- |
|  | (Multiple selections allowed) |
| SACLA | □ |
| J-PARC MLF | □ |
| HPCI including the K computer / the supercomputer Fugaku | □ |

18. Abstract for Complementary Use (2,250 word limit).

In the Complementary Use section of your online application form, please make sure to indicate that your proposal is intended for combined use of SACLA, J-PARC MLF or HPCI including the K computer / the supercomputer Fugaku. Specify research goals, why you require complementary use of facilities, expected results from complementary use of facilities, etc.

In addition, please make sure to also state the following information regarding SACLA, J-PARC MLF or HPCI including the K computer / the supercomputer Fugaku applications.

(a) If you have already carried out experiments at SACLA, J-PARC MLF or HPCI including the K computer / the supercomputer Fugaku, please state relevant information such as the facility’s name(s), dates of research, the proposal number(s), titles of the experiments, name/affiliation of project leader(s), and the research group name(s).

(b) If you plan to apply for use of SACLA, J-PARC MLF or HPCI including the K computer / the supercomputer Fugaku at the same time as SPring-8, please state application information such as facility's name(s), dates of research, titles of experiments, name/affiliation of project leader(s) or research group name(s) (including those which are scheduled).

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**[PAGE 7: Attachments]**

19. File Upload (up to 3 files). Acceptable file formats are JPEG (.jpg/.jpeg), GIF(.gif), PNG (.png) only.