

<u>Central Laser Facility Octopus and Ultra</u> <u>facilities: Call for access</u>

Period: Access from 1st July 2025 to 31st December 2025

Deadline: 17:00 UK time Thursday 23rd January 2025

Access modes:

- Direct Access (1-4 weeks one-off access within a 6-month period)
- New Programme (1-4 weeks access within a 6-month period for 2 to 5 years)
- Continuation of Approved Programmes (update on progress and plans for the next 6 months of programme)

Please carefully read all the information below before applying. Failing to follow the guidelines may result in your proposal being returned without review.



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Where to apply

Please submit all applications to <u>https://proposal.facilities.rl.ac.uk</u>. When applicable, **make sure to submit through the correct access route** (Direct Access or Programme Access), as it is not possible to swap after the deadline due to discrepancies in the questionnaires. If it is the first time you've used the online submission system, you may find it useful to read the documentation here.

NOTE: It is recommended to start applying early, as submission progress can be saved. Submission includes completion of multiple pages of questions relating to your access, as well as the attachment of a scientific case.

For any unanswered queries regarding the proposal system, contact <u>fase-</u> <u>support@stfc.ac.uk</u>

Before applying

It is recommended to contact an appropriate facility staff member ahead of time to help strengthen your application (e.g. obtaining proof of concept data, technical feasibility), see the web pages for Octopus staff and techniques, and Ultra staff and techniques to find an appropriate contact for your proposal. The Facility Access Panel takes in to account the technical feasibility of proposals, which can be commented on by facility staff.

Main applicant eligibility for access to Octopus and Ultra through this call:

- 1) UK academic: All academics will be eligible for access to the STFC facilities, including postdoctoral researchers, those from UKRI (e.g. STFC staff), those with UKRI senior or advanced research fellowships (or their equivalent), Royal Society and Royal Academy of Engineering fellowships.
- 2) Must hold a position that lasts for the duration of the above scheduling period.
- 3) PhD students are not eligible to be the main applicant, but can be named as a Co-Investigator.

Applicants to **Octopus** please note:

Octopus offers access across all microscope systems (see <u>website</u> for further information on the techniques available).



- The facility operates with more than one user group simultaneously, each user group is limited to three simultaneous users, however other members of your user group can switch in and out as needed for the experiment.
- All applicants *must* apply for sufficient access to cover the use of each microscope required. For example, a group intending to use two different Octopus microscopes simultaneously for one week on each should apply for two weeks of access. Applicants must include in their proposal a detailed breakdown of which Octopus microscopes they require, and the amount of time required on each. Proposals will be returned if this information is not provided.

Applicants to <u>Ultra</u> please note:

HiLUX Impact

During 2025, major infrastructure is being installed in the ULTRA facility. HiLUX is an exciting project that will provide the next-generation of time-resolved and non-linear spectroscopy facilities for the user community. Whilst we are not planning to stop operations through this period, we would like to highlight that there may be some impact as follows:

- If there are unexpected equipment failures in our main Ultra operations, we will carefully consider the options of (i) repairing the current operations equipment or (ii) suspending operations to accelerate the HiLUX project.
- As the HiLUX project develops there may be opportunities to move scheduled experiments into the new laboratories. This is likely to be later in the year. We will consult with the individual user groups to discuss the balance between experimental benefits and any delivery risk with the new systems.

Overall, this process will bring major long-term benefits to the user community. Thank you for your patience through this period.

Ultra offers access across three separate laser systems (see <u>website</u> for further information).

- Each laser system has both complementary (unique) and common capabilities. It is *strongly recommended*, especially for new applicants, that you contact an Ultra staff member to discuss your specific needs.
- Should an applicant require the in-parallel use of multiple laser systems or separate experiments, the time requested should be calculated in one-week blocks as the sum of the time requested for each experiment. For example, a group intending to use two different laser systems simultaneously for one week should apply for two weeks of access.
- Multiple user groups may be present at any one time. We therefore ask that all applicants base the personnel resourcing of their user-time on the figure of



three people present at any one time on a particular instrument, with justification given to and permission sought from Ultra group leader <u>Greg</u> <u>Greetham</u> if extra numbers are required.



Access Modes and Guidance

Direct Access

Direct access is a maximum of four weeks of access during the 6-month scheduling period.

Eligibility considerations

Research Council grant funding is not a requirement for Direct Access. The submission of proposals aimed at collecting preliminary data to support future grant applications is encouraged. Where this is the intention, it should be clearly stated in the proposal.

Direct Access proposals from applicants who already have Programme Access awarded as principal or co-investigator will only be considered if they are for a different project; this should be clearly demonstrated in the scientific case, which should explain why the Direct Access application is an entirely different project and not suitable for existing Programme time.

Although grant funding is not a requirement for Direct Access proposals, the panel will take funding into consideration when differentiating similarly ranked proposals, so please ensure that relevant grant funding is clearly identified in your application.

Guidance

Formatting must be adhered to:

- 'Arial' font
- Font size no less than 10 points
- Margin size no less than 1.27 cm from each edge
- Maximum two A4 pages scientific case including all figures, references, etc. (the submission area may say otherwise, but two A4 pages is the limit)

Headings and content must be adhered to:

- Introduction and Aims:
 - $\circ~$ Detail of the research idea / goals, aims and objectives.
 - Define the major hypotheses to be tested.



Preliminary Data:

- Include data observed or collected directly from research and/or development activities.
- Justification for Facility and Equipment Requested:
 - Explain why you need access to the specific Facility why can this not be done outside the specific Facility requested?
- Measurable Expected Outcomes:
 - Describe the impact of the proposed work (international / national / academic / industrial / etc.)
- Experimental Design & Methodology:
 - Provide a detailed experimental methodology and work plan
 - ESSENTIAL: include a tabular or Gantt chart formatted work plan outlining the time required for each part of the experiment

If the application is a resubmission, you must:

- Make sure that you have addressed the reviewer's comments.
- Explain how this is a materially different/improved proposal based on the changes you have made in the **Facility & Funding** section (step 2) of the online submission system in up to 900 characters.

Panel review considerations

Access for technology development will be considered by the FAP; however a significant proportion of the proposal should be used to make it clear how the results will be beneficial for users' science, preferably in collaboration with new/existing users.



New Programme Access

The duration of programmes can be between 2 and 5 years with a maximum 4 weeks per 6-month allocation period.

Eligibility considerations

Programme access can be awarded to UK academics in support of a research grant which has clearly demonstrated the need for a connected series of experiments. Applicants **must** have discussed their instrument and experimental requirements with the relevant Facility Head prior to submission of their grant.

Evidence of support from UK Research Councils or alternative funding sources must be clear and demonstrate that the resources are sufficient to carry out the proposed programme.

The duration of programmes can be between two and five years with the requirement that grant funding is available for the full duration of the programme.

Guidance

Formatting must be adhered to:

- 'Arial' font
- Font size no less than 10 points
- Margin size no less than 1.27 cm from each edge
- Maximum six A4 pages scientific case including all figures, references, etc.

Headings and content must be adhered to:

- Track record (maximum 0.5 A4 pages)
- Detailed scientific case (maximum 5 A4 pages)
 - Introduction and Aims:
 - Detail of the research idea / goals, aims and objectives.
 - Define the major hypotheses to be tested.
 - Preliminary Data:
 - Include data observed or collected directly from research and/or development activities.
 - Justification for Facility and Equipment Requested:



- Explain why you need access to the specific Facility and their equipment – why can this not be done outside the specific Facility requested?
- Need for Long-term Access:
 - Explain why long-term Facility access is required to perform the proposed work, rather than Direct Access.
- Measurable Expected Outcomes:
 - Describe the impact of the proposed work (international / national / academic / industrial / etc.)
- Experimental Design & Methodology:
 - Provide detailed experimental methodology and a work plan for the full programme in tabular or Gantt chart form.
- First Access Period (maximum 0.5 A4 pages):
 - Detailed plan for first access period experiments. Include measurements to be made and a specific experimental design.

If the application is a resubmission, you must:

- Make sure that you have addressed the reviewer's comments.
- Explain how this is a materially different/improved proposal based on the changes you have made in the **Facility & Funding** section (step 2) of the online submission system in up to 900 characters.

Panel review considerations

The FAP will assess the scientific merit of the Programme Access proposal and propose a level of access, taking into account the need for a balanced programme on the instrument. The FAP cannot guarantee instrument time to programme proposals. Instead, they will assign a likely minimum allocation per scheduling round and a maximum possible allocation. The actual assignment for any scheduling period is then dependent on the other demands on the instrument. The final decision is with the Facility Director.

If the FAP does not consider the application appropriate for Programme Access mode, it will consider the proposal as a Direct Access proposal for the round.



Continuation of Approved Programmes

Continuation of an approved programme (usually up to 4 weeks access) during the scheduling period.

Guidance

Formatting must be adhered to:

- 'Arial' font
- Font size no less than 10 points
- Margin size no less than 1.27 cm from each edge
- Maximum three A4 pages continuation case including all figures, references, etc.

Headings and content must be adhered to:

- Progress to Date (maximum 1 A4 page):
 - Where time has already been used, including preliminary data from access.
 - If the access time has not been delivered at the time of writing, please state this.
- Experimental Design & Methodology
 - Provide a detailed set of objectives, measurements and experimental plan for this period.
 - Refer to the original proposal, clearly highlighting any changes to the original programme.
 - ESSENTIAL: include a tabular or Gantt chart formatted work plan outlining the time required for each part of the experiment in this period

Panel review considerations

Successful programme access applicants are required to submit a summary of their progress so far and an outline of the experimental programme to be carried out in the new allocation round. The role of the FAP is to ensure that the work is progressing according to plans put forward during the Programme. Groups with an approved programme are free to submit individual Direct Access proposals which clearly fall outside of the programme. However, they should not submit 'top-up' proposals for experiments that do fall inside the programme.



Criteria for assessment of all proposals

Applications will be assessed within the following criteria

Category 1.

These are absolute pre-requisites, without which an application will not be recommended for funding:

- Scientific excellence: specific objectives of the project
- International competitiveness
- For programme access, grant funding to support the work for the duration of the proposed programme

Category 2.

Supporting evidence which increases the confidence in a successful outcome:

- Productivity of Investigator
- Productivity of grant supported staff (where relevant)
- Quality of leadership/management
- Suitability of Institution/Group

Where any of these are not met the risk and any proposed remedial or mitigation action must be identified. Where any criteria are not met any recommendation for funding would be subjected to scrutiny by STFC. If approved for funding, STFC is likely to make an award contingent on remedial action to address the concerns highlighted before funds are committed.

Category 3.

Important additional criteria:

- Potential for economic impact
- Quality of impact plan (where applicable)
- Applicants are advised to consult the <u>guidance</u> on the above for further information
- Training
- Alignment with UKRI priority areas (e.g. demonstrated through allocation of strategically aligned grant funding)
- Originating from Fellow Residents of the Research Complex
- Combined access with Diamond or other major facilities at Harwell
- Associated with Facility developments aligned with STFC strategy

Each facility access proposal will normally be assessed by at least two referees. Referees and panel members are required to disclose conflicts of interest, personal or institutional, where this arises in relation to a proposal they have been asked to assess. Applicants who lobby or canvas members of the peer review panels or their officers about their research proposal will be disqualified.

In addition, please note the following:



We endeavour to provide access to all proposals supported by Research Council grants. However, because of limited capacity we are unable to guarantee access to all grant-funded proposals. Where the panel feels that a grant-supported application has not provided adequate information on its proposed use of CLF facilities, we may ask for clarification and resubmission of the proposal in the following round before access can be awarded.

Applications that involve access to both the CLF (Octopus, Ultra and Artemis) and other facilities at Harwell (e.g. Diamond Light Source, ISIS) are encouraged. For applications of this type, the scientific advantages of a joint facility approach should be clearly explained in the proposal, as well as any technical issues, e.g. current status of applications to the partner facility, beam-time already awarded, etc. Note that for access to other Harwell Campus facilities separate applications need to be made to the other facility.

Proposals involving collaboration with someone who is not a co-investigator on the proposal require a letter of support from that person. This letter should be emailed to the CLF User Office after submission of the proposal, with the number of the proposal clearly identified in the email subject line.

The CLF User Office requests *thorough and formal* reports for all Direct Access and ongoing Programmes. Repeated failure to supply requested reports may lead to the Facility Access Panel (FAP) deferring your proposal. If you are still due access in the current access period prior to the call deadline, you must ensure that the peer review panel can view a report after the current call closes by sending a copy to the FAP coordinator <u>Robert Lees</u>.