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| http://intranet.ill.eu/fileadmin/user_upload/ILL_logo.png | **INSTITUT LAUE - LANGEVIN**  **The Deuteration Laboratory** [**dlab-proposals@ill.fr**](mailto:dlab-proposals@ill.fr)  71 av des Martyrs, CS 20156, 38042 Grenoble Cedex 9, France |  |

**PROPOSAL FOR USE OF ILL-**

**DEUTERATION FACILITY**

*Please read the attached guidelines before submitting the completed proposal form to the above address.*

*Use Tab key ⭾ to move to next item*

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| **Experiment title** (140 chars max): | *Proposal number*  *(to be completed by ILL)*  ***DL-*** |
| **Proposer** *(to whom correspondence will be addressed)*  Full name and address: | Phone:  Fax:  Email:  New neutron user?  Yes  No  New ILL user?  Yes  No |
| **Co-proposers*****mark with an asterisk*** *the main proposer in each laboratory)*  Full name and address *(if different from above)*: | Phone/fax/email: |

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| **Local contact(s):** |

**This proposal is:**

New

Continuation n°*:*

*an application for further samples must be supported by a report on the use of the previous samples*

Resubmission of n°*:* *(please give previous proposal number)*

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| Estimated time required | Number of people wishing to use lab: | *Requested starting time:*  1. Jan/Feb  2. Mar/Apr  3. May/Jun  4. Jul/Aug  5. Sep/Oct  6. Nov/Dec  unacceptable dates: |

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| I certify that the details on the proposal form are complete and correct.  Date:       Signature of proposer: |

***It*** ***is*** ***essential*** ***to*** ***complete*** ***this*** ***page***. ***Missing*** ***information*** ***can*** ***delay*** ***the safety assessment and result in a rejection of the proposal.***

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| **Deuteration process**  *(if there is insufficient space, please include details in main text of the proposal)*  Molecule to be deuterated:  *(Please add primary sequence of the protein or nucleic acid):*  Origin of the molecule (e.g. human, *Bacillus subtilis*, …): |
| Deuteration method: Bacterial system\*  Detail, including strain  Yeast system  Detail, including strain  Other  For cloned material:  Has sufficient expression been obtained for the non-deuterated material?  Yes  No  (*please show expression level before and after induction on PAGE)*  Has the macromolecule been purified in its non-deuterated form?  Yes  No  Has a host system (bacterial, yeast etc) been adapted to growth in D2O medium?  Yes  No  Has deuterated material already been expressed / purified even on a pilot scale?  Yes  No  Is the user skilled in fermentation/microbiology?  Yes  No  Is there a need to purify the deuterated material in the deuteration lab?  Yes  No  \*(*we highly recommend kanamycin selection for E.coli high cell density cultures in D2O medium)* |
| **Safety aspects**  In which containment level are you currently working and producing your sample?  containment level:  L1  L2 (L3 and L4 not allowed)  Is the sample an active virus?  Yes  No  Is the sample a toxin?  Yes  No  Does the sample present any risk to human health and/or environment?  Yes  No  Uncertain  If ‘Yes’ or ‘Uncertain’, please give more details of the associated risks:  **Important**: Important: if you are coming from a French institute and you are sending a genetically modified organism (GMO) or vector, please provide your DUO license number and the date at which it was validated. |
| **Deuteration regime**  perdeuteration  matchout deuteration  Specific labelling  no labelling / hydrogenated *(only accepted under specific conditions to be discussed with the D-lab team)* |
| Resources required Deuterated carbon source (specify)       amount (grams)       .  D2O       amount (litres)  Equipment:  Fermentor:  Yes  No  Protein purification system:  Yes  No |

Scientific background and detailed description of the proposed experiment; see also guidelines attached

*(Please respect the available space – 2 pages)*

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| **Abstract** *(~ 100 words):* |
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| **Figures** *(insert photos, figures if relevant)* |
| **Your publication record** *(give references to papers published in the last two years arising from ILL experiments):* |

**Guidelines for the submission of a Proposal to the ILL Deuteration laboRatory for Biomolecules (D-LAB)**

#### Application for time – instructions

* Potential users should contact the D-Lab team (Martine Moulin, Valérie Laux and Juliette Devos) at [dlab-proposals@ill.eu](mailto:dlab-proposals@ill.eu) before submitting a proposal.
* Proposal forms may be downloaded from the ILL web-site: <https://www.ill.eu/users/support-labs-infrastructure/deuteration-laboratory/>
* An estimation of the time required and the costs of D2O and deuterated carbon sources will be discussed with the D-Lab team.
* Once completed and discussed with the D-lab team, proposals should be returned as an **electronic attachment**, to the ILL User Office ([user-office@ill.eu)](mailto:user-office@ill.eu)). Paper proposals are not accepted.
* The proposal must be **written in English**.
* Do not change the Word format of the file.
* Please respect the available space on the form
* For accepted proposals we will send an invitation to each participating laboratory.
* Access to the Deuteration Laboratory will be via peer-reviewed proposals.
* Proposers from ***non-member countries*** have to seek collaboration with scientists from member countries.

***Writing a proposal***

*Proposals for use of the laboratory should include:*

* a description of the scientific case for using the laboratory
* *Figures inserted in the dedicated page*
* *an explanation of the background to the scientific problem and why the requirement for deuteration and in particular use of the ILL Deuteration Laboratoty is necessary*
* *a realistic estimate of the amount of laboratory time needed.*

🛈 N.B. Acceptance of a proposal to use the deuteration lab facility does not imply automatic allocation of neutron beamtime although the beamtime committee will be informed of the outcome of the deuteration proposal. Applicants should note that the involvement of the D-LAB should be acknowledged through co-authorship of the relevant local contact(s)/collaborators for any publications arising from the use of the samples produced by the laboratory.

***Practical details***

* The in-house expertise and equipment could be made available to external users to develop their own deuteration projects.
* It is expected that users will have expressed their own cloned material in a fully hydrogenated environment and will come to the ILL D-LAB to carry out expression in a deuterated medium and, if necessary, purification, through collaboration with ILL staff.
* Proposals can be submitted all over the year.

***Reimbursement of costs***

* The aim of the ILL D-LAB is to provide the expertise and infrastructural support necessary to enable users to carry out deuteration of their material.
* Access to this laboratory is provided free of charge for authors of accepted proposals. Scientists affiliated with ILL member countries may be assisted with travel and daily subsistence for a limited period (**one** scientist per proposal) as well as a limited contribution towards D*2*O and deuterated carbon sources. Users should specify in their proposal what resources they require in this area.
* Proposers from non-member countries must seek collaboration with scientists from member countries or local ILL staff members.
* If you are in doubt about reimbursement please contact the ILL User Office **before your arrival**.

***User Office***

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