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

**PROPOSAL FOR USE OF THE**

**ILL DEUTERATION FACILITY (D-LAB)**

*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:       Email:       New neutron user? [ ]  Yes [ ]  NoNew 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/email:       |

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| **D-Lab Local contact(s):** (to be filled in by ILL D-Lab): |

**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 (to be filled in by the D-Lab):      | *Requested starting time:*1. Jan/Feb [ ]  2. Mar/Apr [ ]  3. May/Jun [ ] 4. Jul/Aug [ ]  5. Sep/Oct [ ]  6. Nov/Dec [ ]  |

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| **Applicants should note that the contribution of the D-LAB is expected to 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. Non-compliance may result in the rejection of future D-LAB proposals.** 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       \*(*Please note that ampicillin (or carbenicillin) selection can NOT be used for E.coli high cell-density cultures in D2O medium and that kanamycin selection is required for bacterial growth in deuterated media)* 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 [ ]  NoHas a host system (bacterial, yeast etc…) been adapted to growth in D2O medium? [ ]  Yes [ ]  NoHas deuterated material already been expressed / purified even on a pilot scale? [ ]  Yes [ ]  NoIs there a need to purify the deuterated material in the deuteration lab? [ ]  Yes [ ]  No*If yes, please clearly justify the need in the text.* |
| **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 [ ]  NoIs the sample a toxin? [ ]  Yes [ ]  NoDoes the sample present any risk to human health and/or environment? [ ]  Yes [ ]  No [ ]  UncertainIf ‘Yes’ or ‘Uncertain’, please give more details of the associated risks:      **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 if related to a proposal for deuteration and after discussion)**\*Deuterated molecules are invisible in 100% D2O* |
| Resources required (to be completed by the D-Lab team after initial discussion)Deuterated carbon source (specify)       amount (grams)       .D2O       amount (litres)       Equipment:       Fermentor: [ ]  Yes [ ]  No Protein purification system: [ ]  Yes [ ]  No |

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| **Abstract** *(~ 100 words):* |
| **Scientific background and detailed description of the proposed experiment**; see guidelines on the last page *(Please respect the available space – 2 pages including Figures)* |
| **Figures** *(insert photos, figures if relevant)*  |
| **Your publication record** *(up to five papers published in the last five years):*      |

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

#### General information on the D-lab

* The aim of the ILL D-LAB is to provide the expertise and infrastructural support necessary to help users with the deuteration of their biological material.
* Proposers from ***non-member countries*** have to seek collaboration with scientists from member countries or from local ILL staff members.
* Access to the service provided by the D-Lab is free of charge for authors of accepted proposals. Scientists affiliated with ILL member countries will be assisted with a limited contribution of D*2*O and deuterated carbon sources.
* **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.**

#### Instructions for applications

* **Proposals can be submitted all over the year**.
* Potential users should contact the D-Lab team (Martine Moulin, Valérie Laux, Juliette Devos and Frank Gabel) at dlab‑proposals@ill.eu before submitting a proposal.
* The latest D-LAB proposal form may be downloaded from the ILL web-site: <https://www.ill.eu/users/support-labs-infrastructure/deuteration-laboratory/>
* 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).
* Paper proposals are not accepted.

***Writing a proposal***

*Proposals must be* ***written in English*** *and respect the word format of the template. They should include:*

* A description of the scientific case for using the laboratory, and why deuteration is required
* *A quick overview of the experiments that will be carried out with these samples*
* *Figures (such as expression gels, protein crystals, etc… ) which should be inserted in the dedicated page*

***Information on the review process***

* Access to the D-Lab is via peer-reviewed proposals. The scientific case will be assessed by external experts and this review process may take 4-6 weeks.
* Specific recommendations from the reviewers may be taken into account by the D-Lab team for the project.
* Acceptance of the D-Lab proposal will be communicated by the ILL user office and is compulsory before starting the project at the D-Lab.

***User feed-back after experiments***

* Within one year after receiving the deuterated biological material, a feedback from the proposers would be appreciated.
* A template can be found on the ILL D-Lab webpage and this report would help the D-Lab team to provide the best possible service to the ILL community.

***Publication policy***

* Applicants should note that the contribution of the D-LAB is expected to 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. Non-compliance may result in the rejection of future D-LAB proposals.

***User Office***

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