*[DELETE INSTRUCTIONS BEFORE UPLOADING: Proposal should be 2 pages max, including figures & tables & references – please pay attention to requirements for uploading references and images during proposal submission process.]*

**SUMMARY**

[Please summarize your proposal in 1 paragraph: include what is being requested (e.g. 75 mg of deuterated protein X, expressed and purified by DEMAX, for use in the study of XY and the mechanism of X.]

**BACKGROUND**

[Include here your science case for using DEMAX and neutrons in general. Include a general introduction to the field, putting your proposed project in context. Describe how proposed work will address outstanding questions/issues in the field. Explain what is the main objective, what other (complementary) methods are being used, preliminary results. Include an explanation of *why* neutrons are needed to address these issues and *why* the proposed deuteration is key to the proposed work. Please describe if alternative deuteration schemes or other contrast methods of answering the scientific question have been considered]

**PRACTICAL CONSIDERATIONS**

[This section is not intended to repeat all the technical & practical information we request in the webform during proposal upload – the information here is intended to help the scientific review panel get a sense of feasibility and technical readiness of the samples involved. Remember, you will upload protocols and/or references to protocols during submission so keep it brief.

In this section, please provide practical information on your preliminary results, what other experiments were done, and anything else that will make it easier to review feasibility and technical readiness of your project. For (A) Crystallization we would like you to include a chromatogram from protein purification, a picture of SDS-PAGE, a picture of your crystals, and a brief description from X-ray crystal structure. For crystal structure information please include: space group, unit cell dimensions, resolution, solvent content, R-factors. Any additional helpful information for e.g. protein stability, how fast crystals grow and so on can be included as well.

For (B) Biological deuteration we need a description of how you normally prepare unlabeled protein or biomass, how much you routinely prepare, why a certain level of deuteration is needed. If the protein is to be purified by us, please include chromatogram from purification and a picture of SDS-PAGE that indicates MW and purity.

For (C) Chemical deuteration, briefly address if and/or how unlabeled sample is routinely prepared in user’s home lab, how much you need and a justification. Remember to upload the protocol and/or experimental data in the webform during proposal submission. For the reviewers it is also helpful to include here a chemical drawing of the molecule and indicate where and what level of deuteration is required, as well as a brief justification for this.]

**REFERENCES**

[Include a few relevant references]