Lissa Anderson, 11/5/2020

New User Proposal Outline

Since we are a user facility and magnet time is competitive, all proposals must go through an external review process to be approved for magnet time. This process normally takes ~2-3 weeks. The proposal is simply a 2-3 page summary of the proposed research. I will happily help you draft/submit it. We also need a biosketch from the PI (standard NIH or NSF template is fine). Finally, all collaborators, students, postdocs, and senior personnel that will be involved in the project must register as users (takes 5 min).

The user proposal should follow the basic structure outlined below. MagLab staff will review the proposal, and may ask that additional information be incorporated prior to external review.

I. Title

II. List of collaborators/graduate students/post docs/senior personnel involved with the project, and their respective affiliations

A. All those listed above must register as users in the MagLab User Portal <https://users.magnet.fsu.edu/Default.aspx>

III. Introduction/Background

IV. Preliminary Data (if applicable)

V. Specific aims of experiments to be conducted at the MagLab

VI. Proposed experiments to be performed at the MagLab

A. Number of samples, and sample description(s)

1. If samples pose any health or safety hazards, please include this information, instructions for safe handling, and an MSDS if possible

2. If samples are derived from human subjects, please include relevant IRB information. This information will be reviewed by the FSU Office of Human Subjects

B. How samples will be received and who will perform experiments

C. Sample introduction/ionization methods

D. Data acquisition parameters

E. Data format, analysis, and delivery

VII. Project justification for high-field magnet time

VIII. Statement that “all results will be publishable”

IX. Data management plan

A. Define important metadata

B. The MagLab

X. Project funding

XI. References

XII. PI Biosketch (standard NIH or NSF template is fine)

I would be happy to answer any questions you have and to aid you in preparing a proposal should you choose to do so. I’ve also copied Amy McKenna, Manager of the ICR User Program, and Chris Hendrickson, the director of the ICR program. They can also weigh in and respond to any queries you might have. Please let me know what I can do to help.

Below are some comments and example answers to portions of the outline (red):

I. Title

II. List of collaborators/graduate students/post docs/senior personnel involved with the project, and their respective affiliations

A. All those listed above must register as users in the MagLab User Portal <https://users.magnet.fsu.edu/Default.aspx>

III. Introduction/Background

IV. Preliminary Data (if applicable)

V. Specific aims of experiments to be conducted at the MagLab

VI. Proposed experiments to be performed at the MagLab

A. Number of samples, sample description(s), preparation method(s)

1. If samples pose any health or safety hazards, please include this information, instructions for safe handling, and an MSDS if possible

2. If samples are derived from human subjects, please include relevant IRB information. This information will be reviewed by the FSU Office of Human Subjects

B. How samples will be received and who will process them and perform experiments

* Will user(s) be on-site for experiments?
* Are there any anticipated customs, import/export, or sample handling issues?
  + For example: If samples are on-beads, they must be processed immediately upon receipt
* Example response: Patient mAb samples will be shipped to Dr. Lissa Anderson. She will perform TCEP reduction, and LC-MS/MS experiments.

C. Sample introduction/ionization methods

* Sample introduction = Direct infusion, HPLC, or MALDI
* For DI or HPLC- ESI or APPI?
* Positive and/or negative mode?
* Example response: “Reversed-phase HPLC with +ESI”

D. Data acquisition methods

* Which FT-ICR instrument will be used?
* Data-dependent or targeted?
* For MS2- what dissociation method?
* Any additional considerations
* Example response: “The 21 T FT-ICR will be operated in data dependent mode with CID fragmentation.”

E. Data format, analysis and delivery

* Data acquired with Thermo or Predator data station?
* For Thermo- Are .dat files required in addition to .raw files?
* How will raw data be processed and analyzed, and how will MagLab personnel be involved?
* Example responses:
  + “Data (.raw) files will be uploaded to the NRTDP Galaxy web portal for performing top-down proteomics database searches by TDPortal. Results will be delivered as a .TDReport file.
  + “Data will be delivered in the form of .raw files for analysis by PI and collaborators”
  + “Users have no experience with mass spectrometry data. Data will be analyzed manually by Dr. Lissa Anderson. Results/conclusions drawn from data will be delivered in the form of spreadsheets, powerpoints, or figures created by Dr. Anderson, guided by discussions with PI and collaborators.”

VII. Project justification for high-field magnet time

* What does access to the high field instrumentation get you that you can’t get otherwise?
* Possible Responses: Scan speed, resolving power, issues with peak coalescence, need for UVPD, multiple fills, etc.

VIII. Statement that “all results will be publishable”

IX. Data management plan

* What metadata is required?
* Provide information regarding any plans to make the data publically available (by submission of the data to a repository upon publication, for example

X. Project funding

XI. References

XII. PI Biosketch (standard NIH or NSF template is fine)