

## FAIR Data Management Form Guidelines

(Adopted 01/12/2023)

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The FAIR data management form in the MagLab user portal is designed to ensure that there is a plan in place to provide for durability and [FAIR](#) compliance of research data generated at the MagLab. This is in accordance with the NSF's [policy on dissemination and sharing of research results](#) and the MagLab's general [data management plan](#), which includes the following language: "All data and associated metadata for an approved user project are expected to be made available via public databases or repositories within one year of the time of publication". Users are expected to work with MagLab user support staff to meet these expectations, as well as any additional expectations regarding research data found in facility-specific data management plans.

This form represents the plan at the time of proposal submission; it is expected that the data management strategy may change over the lifecycle of the project.

### **Question 1: How do you propose to archive and backup your data to ensure it is available in the future?**

*Option 1: I will acquire my data using MagLab computers and the MagLab will archive my data for me.*

This option is for users of facilities where data is collected only on MagLab data acquisition computers. MagLab staff are responsible for ensuring that the backup and archival mechanisms described in the facility's data management plan are implemented.

*Option 2: I will acquire my data using my own computer and provide the MagLab with a copy to archive for me.*

This option is for users who plan to use their own data acquisition hardware at the MagLab. Users are responsible for coordinating with MagLab staff to ensure that all data generated during assigned magnet time are transferred to a MagLab-managed storage solution within a reasonable period. This includes both raw, unprocessed instrument data and the products of any initial processing necessary to interpret the data. MagLab staff are responsible for ensuring that the backup and archival mechanisms described in the facility's data management plan are implemented.

*Option 3: I will acquire my data on my own computer and archive it in the manner described below.*

This option is for users who plan to use their own data acquisition hardware at the MagLab and subsequently archive the data using an alternative solution not based at the MagLab, e.g., an institutional archive based at their home institution. User-owned external or cloud-based storage (such as a USB hard drive or Dropbox account) are not acceptable, as these solutions do not guarantee long-term access and durability of the data.

If external access to the archive is possible, accession information (e.g., a persistent URL) should be provided to the MagLab.



## **Question 2: How will you make data acquired at the MagLab available in a manner that is consistent with the FAIR principles?**

Users must report repository accession information in the form of persistent identifiers (e.g., digital object identifiers or DOIs) to the MagLab at the time of repository submission.

Option 1: I will submit the data files to a publication which makes them openly available without a subscription. This option should only be selected if the user plans to submit both minimally processed data (i.e., raw instrument data) and the results of subsequent analysis to an open access journal which allows it to be downloaded without a subscription. The available data should be sufficient to reproduce the results presented in the publication.

*Option 2: I will upload the data files, along with appropriate metadata, to the following repository within one year of publication.*

This option should be selected if the user plans to submit minimally processed data (i.e., raw instrument data) and products of any initial processing necessary to interpret the data to a public repository prior to, or within one year of publication. If available, a domain- or field-specific repository should be used.

If a domain- or field-specific repository is unavailable, a generalist repository may be used. [Open Science Framework](#) is currently the MagLab's preferred option for a generalist repository.

## **Question 3: Tell us any other way that you intend to share your data in accordance with the FAIR principles.**

This section allows users to report any additional measures that will be taken to ensure that the data are FAIR. This includes, but is not limited to, submission of data to additional repositories/databases, provision of rich metadata to enhance findability, or other efforts to facilitate reuse. Users may also provide excerpts from or links to their own institutional or laboratory data management plans.

It is not sufficient for users to state that data will be made available "upon request", as there is no guarantee that requests can or will be honored for the entire period of the data's usefulness.