

UPDATED Information about the Data Management Plan Required for all Proposals (2/20/13)

## **BACKGROUND**

The National Science Foundation (NSF) required a data management plan (DMP) for all full proposals submitted, or due, to NSF on or after January 18, 2011. For the full policy implementation, see the NSF Grant Proposal Guide (GPG) Chapter II.C.2.j, in the NSF Proposal and Award Policies and Procedure Guide.

## REQUIREMENT

Proposals must include a supplementary document of no more than two pages labeled "Data Management Plan". Any specific instructions and exceptions to the two page limit will be found in specific Program Solicitations. The DMP is NOT part of the 15 page Project Description. Even if no data will be produced (e.g., a workshop proposal), a DMP should be submitted that states: "No data are expected to be produced from this project."

In collaborative proposals or proposals involving sub-awards, the lead PI is responsible for the DMP for the entire project; i.e. the DMP must cover all the various data types being collected by all collaborators. The lead PI is also responsible for reporting in the Annual and Final Reports on the data management, preservation and access for the whole project.

The DMP should describe how the PI(s) will manage and disseminate data generated by the project in sufficient detail to enable evaluation of the plan (and past performance if any) during the merit review process. Adherence to the proposed DMP will be monitored by BIO Program Directors and Committees of Visitors.

## CONTENT

The Federal government defines data in the OMB Circular A-110: "...the recorded factual material commonly accepted in the scientific community as necessary to validate research findings." This definition includes both original data (observations, measurements etc.) as well as metadata (e.g., experimental protocols, statistical methods, etc.), and software or computer code that is required for replication, etc.

BIO recognizes that each biology sub-discipline may have its own data management standards, and that accepted norms are changing as biology increasingly collaborates with other scientific disciplines. Therefore, each DMP should be appropriate for the data being generated and reflect the best practices and standards in the area of research being proposed. BIO is also committed to timely and rapid data distribution. However, it

<sup>&</sup>lt;sup>1</sup> 1 This definition of data does not include physical objects such as laboratory samples or:

<sup>(</sup>A) Trade secrets, commercial information, materials necessary to be held confidential by a researcher until they are published, or similar information which is protected under law; and

<sup>(</sup>B) Personnel and medical information and similar information the disclosure of which would constitute a clearly unwarranted invasion of personal privacy, such as information that could be used to identify a particular person in a research study." (http://www.whitehouse.gov/OMB/circulars\_a110)

recognizes that types of data can vary widely and that acceptable norms also vary by scientific sub-discipline. It is strongly committed, however, to the underlying principle of timely access, and applicants should address how this will be met in their DMP statement.

Since DMPs will be considered during the merit review process, to help reviewers, and as appropriate, please organize the DMP as follows:

- 1. Describe the data that will be collected, and the data and metadata formats and standards used.
- 2. Describe what physical and/or cyber resources and facilities (including third party resources) will be used to store and preserve the data after the grant ends.
- 3. Describe what media and dissemination methods will be used to make the data and metadata available to others after the grant ends.
- 4. Describe the policies for data sharing and public access (including provisions for protection of privacy, confidentiality, security, intellectual property rights and other rights as appropriate).
- 5. Describe the roles and responsibilities of all parties with respect to the management of the data (including contingency plans for the departure of key personnel from the project) after the grant ends.

## **POST-AWARD MANAGEMENT**

After an award is made, implementation of the DMP will be monitored through the annual and final report process and during evaluation of subsequent proposals. Data management must be reported in subsequent proposals by the PI and Co-PIs under "Results of prior NSF support".

Annual project reports required for all NSF multi-year awards must include information about progress made in data management and sharing of research products (e.g., identifier or accession numbers for data sets, citations of relevant publications, conference proceedings, and other types of data sharing and dissemination)

Final project reports required for all NSF awards should describe the implementation of the DMP including any changes from the original DMP and contain the following information:

- The data produced during the award period
- The data that will be retained after the award expires
- How the data will be disseminated and verification that it will be available for sharing
- The format (including community standards) that will be used to make the data including any metadata – available to others
- Where the data generated by the project has been deposited/is being stored for long-term public access