

Directorate for Biological Sciences  
Information about the Data Management Plan Required for all Proposals (6/15/11)

## BACKGROUND

The National Science Foundation (NSF) started requiring a data management plan (DMP) for all full proposals submitted, or due, to NSF on or after January 18, 2011. As stated in the [NSF Proposal and Award Policies and Procedure Guide](#):

*Investigators are expected to share with other researchers, at no more than incremental cost and within a reasonable time, the primary data, samples, physical collections and other supporting materials created or gathered in the course of the work under NSF grants.*

[\[http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/aag\\_6.jsp#VID4\]](http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/aag_6.jsp#VID4)

The full policy implementation is described in the NSF Grant Proposal Guide (GPG) Chapter II.C.2.j.

## REQUIREMENT

All proposals must include a supplementary document of no more than two pages labeled “Data Management Plan”. The DMP is NOT part of the 15 page Project Description. Even if no data will be produced (e.g., for a workshop), 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 assuring data storage and access.

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 (OMB Circular A-110) as: “...the recorded factual material commonly accepted in the scientific community as necessary to validate research findings.”<sup>1</sup> This definition includes both original data (observations, measurements etc.) as well as metadata (e.g., experimental protocols, software code for statistical analysis etc.).

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

- (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
- (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.”

BIO recognizes that each area of biology may have its own definition of what constitutes data and the management of data, 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.

Each DMP should address the following questions, as appropriate:

What kind of data will be collected, standards employed, and for how long will data be retained?

What physical and/or cyber resources and facilities (including third party resources) will be used to store and preserve the data?

What data and metadata formats, media and dissemination methods will be used to make the data and metadata available to others?

What will be the policies for data sharing and public access (including provisions for protection of privacy, confidentiality, security, intellectual property rights and other rights as appropriate)?

What are the rights and obligations of all parties with respect to their roles in and responsibilities for the management and retention of research data (including contingency plans for the departure of key personnel from the project)?

#### 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 CoPIs 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., 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 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
- The archival location of the data