Data Management Best Practices

EFFECTIVE DATE: June, 2016

Terms used herein are as defined in the USA Data Management and Laboratory Notebook Ownership Policy.

Collection and Retention of Research Data

Principal Investigators (PIs) should implement a classification system to organize Data. It is the responsibility of the PI to communicate the selected system to the PI’s laboratory personnel and ensure the methods and accuracy of Data collection and analysis are maintained. The Research records should entail adequate detail to allow examination for the purpose of replicating Research experiments, verifying authenticity of records, validating conclusions, and responding to allegations of Research misconduct.

For studies involving multiple University Affiliated Individuals or collaborators, it is recommended the PI of record retain a master log cataloging the experiments for the entire study. The PIs should also keep record as to locations of Laboratory Notebook, Data, and pertinent materials kept in other laboratories/locations.

The Laboratory Notebook is the most common method used to document experiments and field work. Recommended recordkeeping practices can be found in the University’s “Laboratory Notebook: Best Principles and Best Standards” publication. Briefly, in addition to the study title, the University Affiliated Individual’s name(s), and the study hypothesis, the experimental lab notebook should include detailed information on the materials used, sources of the materials, experimental methodology, statistical treatments, results and conclusions so as to enable replication of the experiments by others at any time. Data that cannot be entered directly in the Laboratory Notebook (e.g. glass microscope slides, fixed tissue samples, geological field samples, thumb drives, etc.) should be referenced in the Laboratory Notebook along with explicit instructions as to where the Data can be found.
Research Data should be archived for a minimum of seven years following the conclusion of the Research project. If funding is provided from an outside organization, the policies of the grantee organization generally will prevail over the minimum standards set herein. There are state and federal regulations prescribing the length of time original Data must be retained, varying from three to seven years depending on the governmental organization. In addition, any of the following may warrant justification for longer periods of retention:

- Terms of a sponsored Research agreement administered by the University’s Office of Sponsored Projects Administration;
- Research involving minors may need to be retained until the subjects reach the age of 21;
- Research Data must be retained as long as necessary to protect intellectual property resulting from the work. Data used to support a patent or copyright application must be archived for a minimum of twenty years or such other time as required by the University Office of Commercialization and Industry Collaboration;
- If allegations regarding Research arise, such as Research misconduct or conflict of interest, Data must be retained for a minimum of seven years as required by federal regulation, or until such charges are fully resolved.

Records of Research Data collection and retention should be retained by the PI in the department or unit where they originated. In any event where encryption is used to secure electronic records of Research Data, keys and recovery procedures should also be appropriately maintained by the PI to ensure data can be decrypted into a readable format.

**Responsible Party**  
Vice President Office of Research and Economic Development

**Next Review Date**  
March 2018