

DATA MANAGEMENT AND SHARING PLAN

If any of the proposed research in the application involves the generation of scientific data, this application is subject to the NIH Policy for Data Management and Sharing and requires submission of a Data Management and Sharing Plan. If the proposed research in the application involves the generation of large-scale genomic data, the Genomic Data Sharing Policy also applies and must be addressed in this Plan. Refer to guidance on [Writing a Data Management and Sharing Plan](#). When preparing your plan, you should delete the text in italics. There is no "form page" for the Data Management and Sharing Plan. The DMS Plan must be provided in the *format* shown below.

1. Will there be [maximum appropriate sharing of scientific data](#) underlying peer-reviewed publications and other findings resulting from the work supported by this award (including preprints, refereed papers reported at conferences, and other findings)?
Yes ☒ No ☐
2. Will the scientific data underlying peer-reviewed publications be shared by the time of publication, or for other findings, by the end of the period of performance, which includes no-cost extensions?
Yes ☒ No ☐
3. Will shared scientific data be made available for at least as long as required by applicable data repository policies and/or journal policies?
Yes ☒ No ☐
4. If you answered "no" to elements 1, 2, or 3, or if you anticipate that sharing will be limited in some other way, please describe these limitations and the ethical, legal, or technical factors for them. Your response should specify a particular reason(s) for limiting sharing.
N/A
5. If scientific data derived from human research participants will be shared, will privacy, rights, and confidentiality of participants be protected as outlined in [NOT-OD-22-213](#)?
Yes ☐ No ☐ Not Applicable ☒
6. *In the table below, please list [100 words maximum]:*

Expected Data Type	Established Repository or Example
Mouse DEXA data , e.g. bone mineral density (BMD) etc... analyzed at various regions of interest and shown in aggregate groups based on genotype for all mice. These data are obtained via analysis of the region of interest on the instrument software and then copied into Excel files.	All raw data, compiled in Excel files will be preserved and shared either via publication or upon request to allow reproducibility of results and conclusions by others. Data, with details of metadata, will be shared either through a data repository to be created at the Center for Musculoskeletal Disease Research at UAMS or via commonly used data sharing platforms, such as Figshare.com.
Mouse MicroCT data , i.e. raw data on several parameters derived from the integrated analysis of stacks of 2D scanned images and shown in aggregate groups, divided by genotype, often in a single Excel file containing multiple tabs.	Same as above
Mouse Bone Biomechanics data derived from 3pt-bending. Relevant raw data will be copied onto an Excel file and then 'curated' to generate	Same as above

a load-displacement curve from which strength parameters are derived, according to an established standardized template.	
Mouse Histology and Dynamic Bone Histomorphometry: these data are calculated from the analysis at the microscope of multiple bone sections for each mouse and performed and with the use of dedicated software. Raw data from multiple parameters will be compiled and shown as aggregate from mice of the same genotype onto Excel files with the calculation of averages and standard deviation of the data.	Same as above
Mouse <i>in vivo</i> plantar flexion test and ex vivo muscle function data: individual mouse data will be collected, grouped based on genotypes, and compiled into Excel files with multiple tabs with the calculation of averages and standard deviation of the data.	Same as above
Mouse Proteomics Data: proteins that are differentially expressed, or differences in PTMs, will be listed on Excel files containing proteins name, p-values and adjusted p-values	Same as above
Mouse Mitochondria Data: data collected on mitochondrial function will be organized in Excel files, with multiple tabs and based on the assay performed	Same as above

7. For studies subject to the NIH Genomic Data Sharing Policy (GDS) (e.g., using NIH funds to generate large-scale human genomic data):
- Will you share all large-scale human genomic and associated data in a NIH-designated repository according to the accelerated timelines expected in the GDS Policy?
Yes ☐ No ☐ Not Applicable ☒
 - Do you anticipate that when sharing you will be able to meet the [expectations of the Institutional Certification](#) in the GDS Policy?
Yes ☐ No ☐ Not Applicable ☒