Plan Overview

A Data Management Plan created using DMPTool

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Title: Exploration and Validation of SHIPi Approaches in Models of Alzheimer's Disease

Creator: William Kerr - ORCID: <u>0000-0002-4720-7135</u>

Affiliation: SUNY Upstate Medical University (upstate.edu)

Principal Investigator: William G. Kerr

Data Manager: William G. Kerr

Project Administrator: William G. Kerr

Contributor: John Chisholm

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Exploration and Validation of SHIPi Approaches in Models of Alzheimer's Disease

Data generated via the following methods: flow cytometry, confocal microscopy, fluorescence microscopy, ELISA, and absorbance measurements. This data will be collected from a minimum of 3 independent in vitro experiments, with each independent experiment consisting of mutiiple group comparing different SHIPi approaches The total size of the data collected is projected to be 50 GB.

We expect to generate the following data file types and formats during this project: Carl Zeiss microscopic image file (.CZI), images (.TIFF), tabular (.CSV), flow cytometry list mode data.

Raw data files will be analyzed to generate Prizm or Excel files containing replicate measurments in the above to enable statistical analysis.

In this proposed project, the cleaned, item-level Prizm files for all variables will be shared openly, along with example quantifications and transformations from initial raw data. Final files used to generate specific analyses to answer the Specific Aims and related results will also be shared. The rationale for sharing only cleaned data is to foster ease of data reuse.

To facilitate interpretation of the data, statistical analysis, bench protocols and details involved with data collection and interpretation will be created, shared, and associated with the relevant datasets.

FlowJo or IncuCyte analysis software will be important to access raw list mode cytometry data. The raw data generated via confocal microscopy is in the Carl Zeiss (.czi) file format. Zeiss software or Fiji ImageJ is required to access the raw data.

No consensus data standards exist for the scientific data and metadata to be generated, preserved, and shared. However, if this should change for the analysis of brain sections or behavioral studies then we will certainly adapt these standards.

All dataset(s) that can be shared will be deposited in any repository that is created for microglial or Alzheimer's Disease research that is created by NIH or international body. To our knowledge such databases do not currently exist. If they do or are created during the tenure of this grant then we will certainly participate fully.

Imaging data will be deposited into NCI's Imaging Data Commons. All other data described above in the "data to be shared" section will be deposited into Figshare. Figshare is the institutional data repository supported by Upstate Medical University and all data is shared under a CC0 license, which makes the dataset(s) publicly accessible.

We will use unique persistent unique Identifiers (PIDs) to improve data findability across all dissemination outputs, including digital object identifiers (DOI) or accession numbers, to support data discovery, reporting, and research assessment.

All scientific data generated from this project will be made available as soon as possible, and no later than the time of publication or the end of the funding period, whichever comes first. The duration of preservation and sharing of the data will be a minimum of 10 years after the funding period.

There are no anticipated factors or limitations that will affect the access, distribution or reuse of the scientific data generated by the proposal.

Controlled access will not be used. The data that is shared will be shared by unrestricted download.

No human subjects in this study.

Lead PI William G. Kerr, ORCID: 0000-0002-4720-7135,, will be responsible for the day-to-day oversight of lab/team data management activities and data sharing. Broader issues of DMS Plan compliance oversight and reporting will be handled by the PI and Co-I team and supported institutionally by the Information Management and Technology (IMT) Research Technology Core, in accordance with general Upstate Medical University stewardship, reporting, and compliance processes.