DATA MANAGEMENT PLAN

SHARING OF DATA AND MATERIALS

Sharing of results and protocols: Results, data analyses, and detailed experimental protocols will be published in a timely fashion, with preference given to open access journals. This project will work with a significant number of large, complex data sets including genome sequences, annotations, and transcriptome data. The Springer group has substantial experience working with these types of data at these scales. We have institutional resources that provide secure storage of the data with off-site back-up of the primary data and secondary analytical products. To organize data products shared through different public repositories (see below), we will develop and maintain a simple publicly-accessible website that provides metadata information and DOI or SRA numbers to allow easy access to the datasets for the community. This will not host any primary data but will simply aid in the organization of resources for this project and a stable version of this will be maintained for 5 years after the project by the Springer group using a GitHub website. Below we specify the details for each of the types of data produced by this project.

Large datasets: All whole genome bisulfite and RNA sequencing data will be deposited in the NCBI SRA along with sufficient metadata to document genotype, tissue, growth conditions and library preparation as soon as we have verified quality of the complete dataset. Andrew Read will be responsible for this data release. Other datasets generated, such as those with highly processed data, will be maintained on our server and distributed without restriction upon or prior to publication.

Biological materials: We anticipate generating vectors and transgenic or edited Setaria lines as part of this project. Vectors will be deposited with Addgene for storage and distribution. For edited Setaria lines, seed stocks that might be of wide interest (i.e., targeted mutations or stress reporter lines) will be distributed by Springer after the stocks have been characterized and verified to contain a specific mutation or transgene. All interstate shipment of transgenic seeds will be performed under USDA APHIS BRS regulated interstate transport permits and adhere to federal regulations and standard containment protocols.

Management of intellectual property: The majority of our data will be deposited in the public domain through publication or release at data repositories such as GEO and SRA. Our intent is to provide materials and accurate information to the research community promptly. Any decisions regarding whether to file patent applications protecting inventions that may be developed within the experimental aspects of this project will be made with participating institutions according to their normal policies and procedures. Inventorship and rights will be determined by U.S patent law and inventor's institutional policies. The use of project inventions for academic research purposes will be unrestricted.