

## **Data Management Plan**

Sharing of data, protocols, and resources generated by this project is an essential part of our proposed activities and will be carried out in several different ways. We wish to make our results, protocols and resources available to the community of scientists and engineers and we would welcome collaboration with others who could make use of the protocols, data and resources developed by this project.

All scientific findings including single-cell growth datasets as well as engineering designs and processes will be made available via publications in the standard scientific literature. This will include a detailed description of the construction plans of the system for measurement of single cell growth rates and details on sample collection. Key results will be shared prior to publication through presentations at scientific meetings and/or through bioRxiv.org.

### Data Standards and Formats

Publications and other printed data will be stored electronically in PDF or Word DOC or DOCX format, and numerical data will be stored in tab-delimited or comma separated values where possible. Digital data will be stored in ASCII format, unencrypted, compressed or uncompressed as deemed necessary to make best use of digital storage capacity. Metadata in the form of file naming conventions and readme files will be provided for all digital data comprising SMR data or analysis code, and will reflect, at a minimum, the name of the person who generated the data, date of creation or modification, title and model of equipment or version code used to analyze the data.

### Data storage and management

Our primary data management archive will be through the Biological and Chemical Oceanography Data Management Office (BCO-DMO). All data obtained in our program will be submitted to BCO-DMO within 2 years of collection.

In addition, primary data will be retained in 3 forms during the lifetime of the program. For all data, at least 1 copy will be retained locally in electronic or print form by the PI or researcher, 1 copy will be retained in electronic form on an external hard drive allocated to the project, and 1 copy will be retained electronically as backup on MIT's licensed institute backup service. All data will be retained for a minimum of 3 years after conclusion of the award or public release of the data, whichever is later.