Data Management Plan

PI **Breier**, co-PI **Jakuba**, co-PI **Saito**, and co-PI **Dick** are strongly committed to the broad dissemination of research results and engineering developments. This is principally an engineering development proposal for an autonomous vehicle and sampling system. As a result of testing the sampling capabilities of this vehicle a dataset of genomic, transcriptomic, proteomic, and geochemical will be generated. The results of these engineering development and testing efforts and the data they generate will be reported on in peer-reviewed engineering and scientific journals. The metal, nutrient, hydrographic and protein datasets will deposited into the BCO-DMO repository as previously done with our CORSACS, GEOTRACES, and CoFeMUG data and DNA sequences will be deposited in Genbank and made publicly available in keeping with NSF data management policy concerning timing and access.

We are also committed to providing the broadest access to this engineering development both in knowledge and ultimately in terms of hardware (through funding mechanisms external to this award). The instrument developed by this proposal once tested and field proven will be reported on in a peer-reviewed journal (e.g., Deep Sea Research, or Ocean Engineering) and presented during a conference talk (e.g., OCEANS IEEE 2014). Related and additional information (i.e., related research, images, background) will also be added to a project website. The instrument itself will be maintained and made available for use during future research cruises.

Due to the complexity of the technology involved we feel that continued production of the system is best done through a commercial ocean instrumentation manufacturer. To this end, a license(s) to commercially develop all or portions of the engineering products of this proposal can be applied for - and handled by WHOI. Due to the fact that prior intellectual property rights will be incorporated in the system developed by this proposal – in a controlled and legal manner – the full and specific mixture of novel and established technologies will not be completely known until after successful testing of the completed system. Thus the full extent and nature of the licensing required to commercially produce a *Clio* system will not be completely known until near the end of this project. For example, it is very likely that the system developed by this proposal will share many features of previously developed WHOI Deep Submergence Laboratory Vehicles (e.g., *ABE*, *Sentry*, *Nereus*) as well as the SUPR sampling system described by Breier et al. 2009 – which we have recently licensed to McLane Research Laboratories, Inc. for commercial reproduction. Regardless our goal will be to follow the path most likely and legal path to ensure access of the technology to the scientific community.