**Facilities and Other Resources**

**Genome Informatics Facility**

The Iowa State University Genome Informatics Facility (ISUGIF) serves as a centralized resource of expertise on the application of emerging sequencing technologies and open source software to biological systems. Its mission is to integrate this knowledge into pipelines that are easy to understand and use by faculty, staff and students to enable the transformation of ‘big data’ into data that dramatically accelerates our understanding of biology and evolutionary processes. ISUGIF has both the computational resources and bioinformatics staff to handle the analyses described in this proposal. All data is redundantly backed up using RAID-6 storage to prevent loss of data. A key part of our data security will be hosting of the data on RAID 6 storage boxes that are on a private IP address and therefore only accessible to people with accounts and passwords on campus or through the campus Virtual Private Network (VPN). Additionally, only members of the Genome Informatics Facility group will have access to the folder containing the raw and analyzed data during the exploratory to analysis phases of the project. Data will be provided to other members of the project team through password-protected access to folders containing the data. All raw data will be deposited into the NCBI Short Read Archive.

**DNA Facility**

The DNA Facility of the Iowa State University Office of Biotechnology provides research support services for investigators within academia, industry, and government. The DNA Facility is committed to providing quality service in a consistently rapid, dependable, and economical fashion.  The DNA facility operates a PacBio RS II, an Illumina HiSeq 2500 and an Illumina MiSeq instrument.  The DNA Facility has provided sequencing services for a variety of projects that include but are not limited to *de novo* sequencing, genome resequencing, metagenomics, amplicon sequencing, ChIP-Seq, RNA-Seq and small RNA sequencing.

**High Performance Computing Facility (HPCF)**

The High Performance Computing Group provides training, assistance, and support for research and high performance computing as well as engaging in funded research projects. Through support from the University, the HPC facility pays for power, cooling and networking of the shared computing infrastructure. They also maintain and fix the infrastructure as needed to minimize the downtime and maximize the time for research.