Statement of Work

Service Needed: ARS Salinas has a research need for high quality whole genome sequencing and gene annotation of 30 fungal samples from spinach seeds. This research involves DNA extraction, sample quality control, DNA sequencing, sequence data quality control, whole genome assembly and genome annotation for all 30 samples. The goal of this critical study is to understand the pathogen genotypes imported from Northern Europe and the Pacific Northwest United States into fields for fresh spinach production in the United States. The fungal pathogen is a broad spectrum pathogen that can attack other crops grown in rotation with spinach. Specific requirements are listed below:

Requirements:

- High molecular weight DNA extraction from the mycelia of 30 fungal samples
- Long read PacBio Revio DNA sequencing on two flow cells for 30 samples
- De novo genome assembly for 30 samples
- Gene annotation for the 30 assembled genomes (workflow add-on)
- Supply sequence and annotation data on a hard drive

Period of Performance: The fungal samples will be shipped to the vendor within three weeks from the date of award. Sequencing must be completed and results returned within 90 days from the receipt of the samples.