

## Study Design

lipidomics

Sample Type: *Synechococcus elongatus* PCC7942 cells

Sample Total: 4 samples (using back up samples)

Treatments: 2: WT bacteria and KaiC mutant

Collection Method:

Bacteria were grown in a turbidostat/bioreactor at equal cell density (measured by optical density at 750nm), under a 12:12h Light/Dark cycle. Samples were collected at T0 (beginning of day) and T4 (4h into day). 40ml of sample was collected at each time point into a 50ml conical tube containing ice up to the 30ml mark. After collection samples were immediately placed on ice and then centrifuged at 5000RPM for 10min at -4 degrees Celsius. After centrifugation supernatant was decanted and cell pellets were immediately frozen in liquid N2. Samples have been stored at -80 degrees Celsius for ~1 week and shipped packed in dry ice.

Note:

This set of samples is a test-run for a complete study with  $n=3$ . The two sample types are: WT cells and a KaiC mutant. Samples are collected for each strain at both a T0 time point and at T4 time point. In this test run this gives a total of 4 samples. In the full experiment there will be a total of 12 samples (3 for each time point \* 2 strains)