



# Peters - Cyanobacterial hydrogenase structure, function, and directed evolution



## Objectives

- Screening for an appropriate model system, hydrogenase activity and stability
- Biochemical and structural characterization of cyanobacterial hydrogenases
  - Random & specific mutagenesis for higher  $H_2$  production
- Complementing optimal host phototrophs with engineered hydrogenases

Identify model hydrogen producing cyanobacteria

Characterization

Directed evolution

Implementation

