Synthetic PVC Regulation

'Recombineer' cosmid library with inducible promoters

Establish recombineering methodology within the lab

Recombineer inducible promoters on to existing cosmid library

`de novo` clone PVC operons via long PCR and restriction-free assembly

Design primers for assembly and long PCR

Optimise assembly for multiple large fragments

Natural PVC Regulation

Explore population PVC expression dynamics

Construct PVC promoter fusions

Examine PVC expression via fluorescence microscopy

Explore the role of anti-termination in PVC operons

Identify RfaH-like orthologues and binding sites in PVC operons

Attempt knockout studies

Natural PVC Regulation

Explore population PVC expression dynamics

Construct PVC promoter fusions

Examine PVC expression via fluorescence microscopy

Explore the role of anti-termination in PVC operons

Identify RfaH-like orthologues and binding sites in PVC operons

Knockout studies

RfaH deletion in Photorhabdus

RfaH deletion in E. coli