Simultaneous Production of D-Lactate and Ethylene by Engineered Cyanobacteria
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Background
Cyanobacteria has the potential to efficiently convert CO₂ into valuable biochemicals through photosynthesis. They can be used to produce lipids and other substances that can be converted into biofuels. Cyanobacterium *Synechococcus* sp. PCC 6803 was selected due to its natural ability to accept foreign DNA and rapid doubling time.

Challenges
Previous work has separately engineered cyanobacteria to produce D-lactate and ethylene. However, producing only one chemical may not be economically viable.

Research Aims
To enhance its economic potential, this research project aims to demonstrate the co-production of D-lactate and ethylene using cyanobacteria strain, *Synechocystis* sp. PCC 6803.

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