

Illuminating photosynthesis in single cyanobacterial cells

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Motivation





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Explanation of fluorescence





Compared to wild-type, the \triangle cpc mutant is to collect light but is also less susceptible to photodamage

Repair vesicles



Conclusions

- Photoinhibition can be induced without antibiotics
- Experiment and control strains can be grow simultaneously, increasing reproducibility
- Imaging revealed that some colonies exhibit asymmetric survival despite being genetic identical - new bet hedging mechanism?
- Important to understand how cells grow optimally in fluctuating light environments

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