



Characterisation of the molecular mechanism of CO₂ capture and sequestration by formation of intracellular amorphous carbonates (iACC) inclusions

Khan Monis Athar, Sigrid Görgen, Karim Benzerara, Soufian Ouchane,
Franck Chauvat, Corinne Cassier-Chauvat

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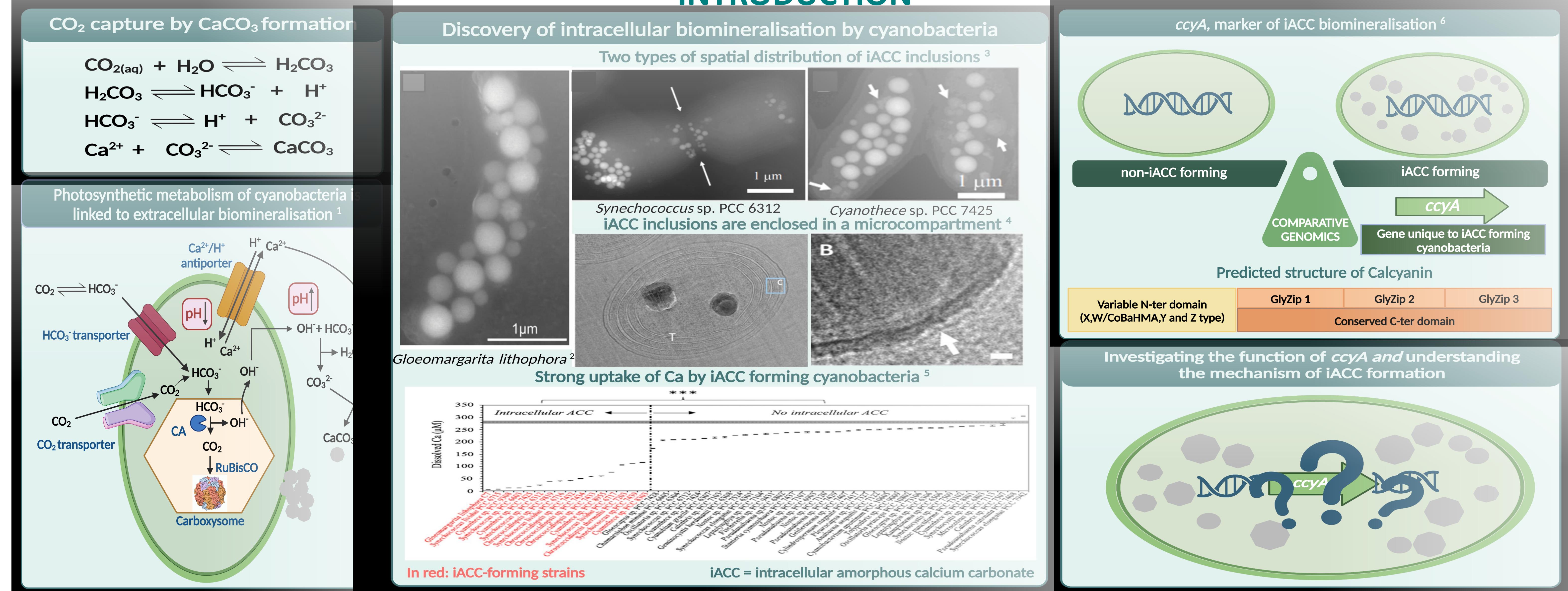
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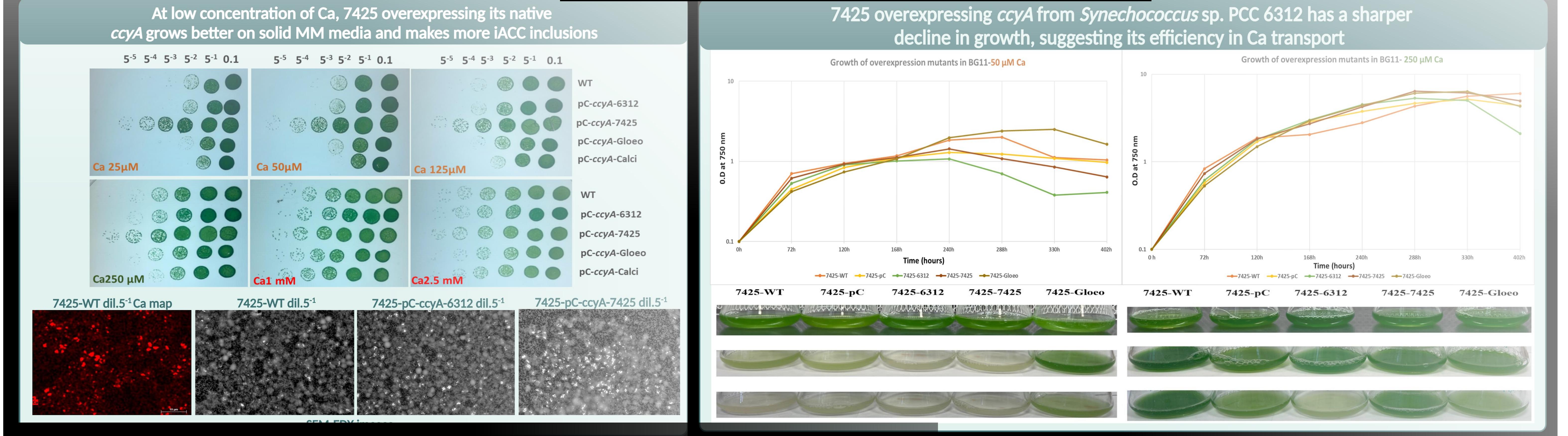
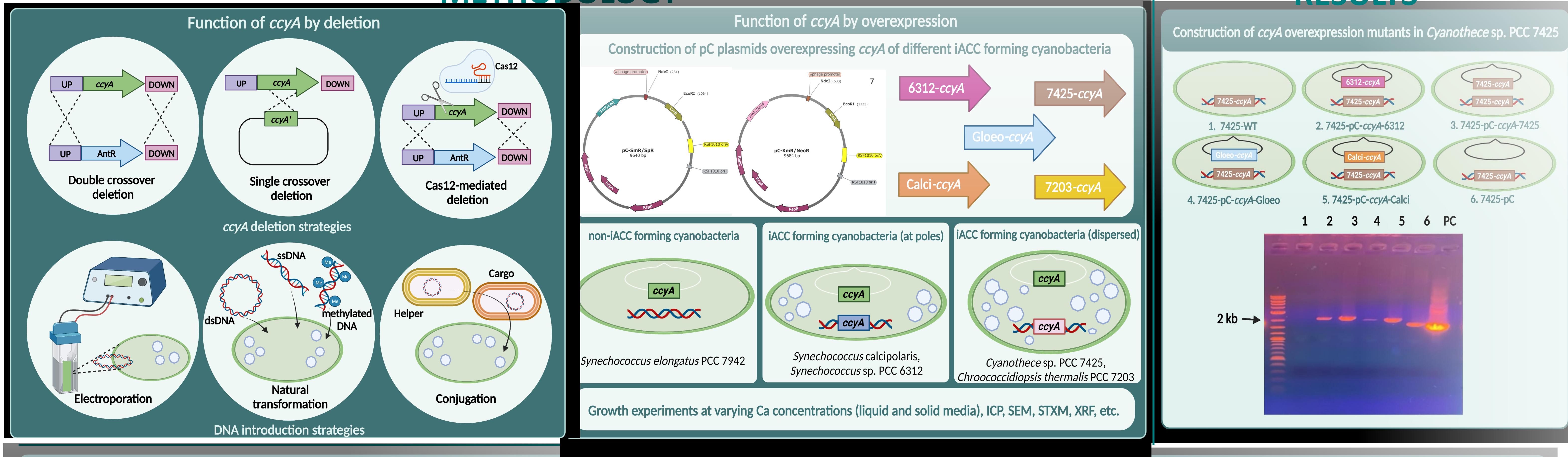
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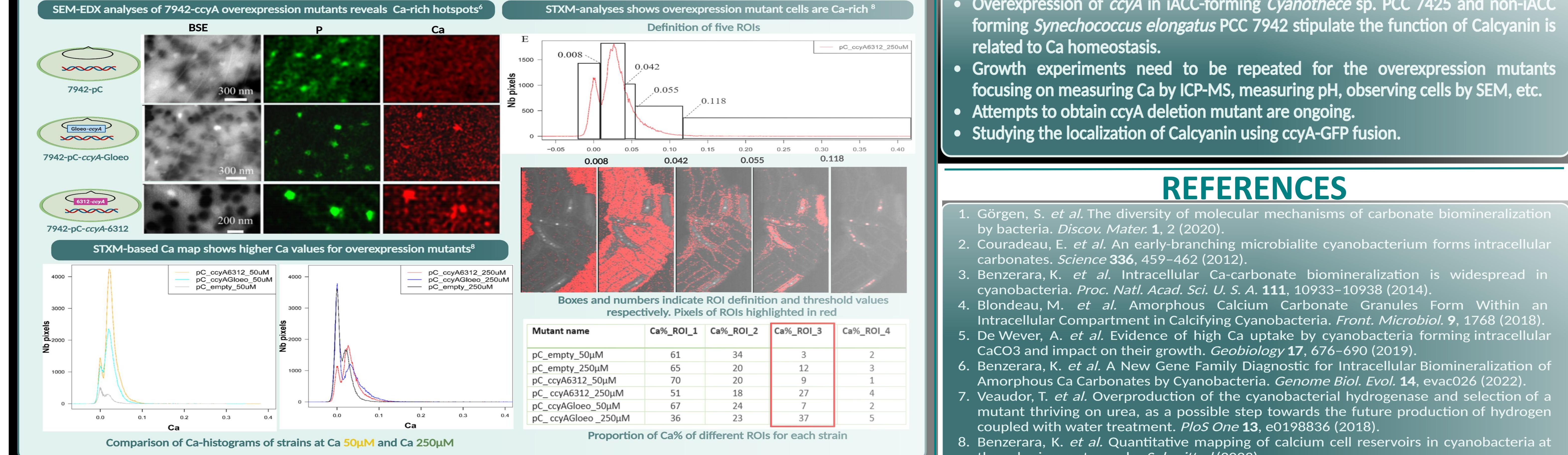
INTRODUCTION



METHODOLOGY



Overexpression of *ccyA* in non-iACC forming *Synechococcus elongatus* PCC 7942 indicates that Calcyanin might be involved in Ca homeostasis



CONCLUSIONS AND PERSPECTIVES

- Overexpression of *ccyA* in iACC-forming *Cyanothece* sp. PCC 7425 and non-iACC forming *Synechococcus elongatus* PCC 7942 stipulate the function of Calcyanin is related to Ca homeostasis.
 - Growth experiments need to be repeated for the overexpression mutants focusing on measuring Ca by ICP-MS, measuring pH, observing cells by SEM, etc.
 - Attempts to obtain *ccyA* deletion mutant are ongoing.
 - Studying the localization of Calcyanin using *ccyA*-GFP fusion.

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