**Converting *Candida bombicola* into a production platform for interesting biomolecules.**

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The yeast *Candida bombicola* is capable of de novo production of the biosurfactant sophorolipid with exceptional high yields (400g/l) and efficiency when grown on glucose and rapeseed oil. These molecules have excellent surfactant activities and are industrially produced for use in ecological cleaning solutions. However, structural variety -and hence application range- is limited to the substrate specificity of the enzymes responsible for biosynthesis. Our aim is to develop a generic platform technology for production of tailor-made glycolipids with physicochemical and biological properties beyond the natural variety. To do so new or altered genes need to be expressed in this non-conventional yeast making a molecular toolbox indispensable.

Two reporter systems were developed to evaluate gene expression for combinations of integration sites, promoters and terminators. The set up will allow us to assess the optimal parameters for expression of genes encoding both intracellular and extracellular proteins. The latter is achieved by using parallel expression strategies of an intracellular codon optimised GFP and extracellular codon optimised amylase. The set up will be expanded to develop a promotorbank for *Candida bombicola*. This will be an invaluable tool for expression of (heterologous) genes in this industrially important yeast thus converting it into a platform organism for the production of (new) interesting biomolecules.

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