

Optimization of bikaverin production in *Saccharomyces cerevisiae*

The red pigment bikaverin is normally produced by many species in the fungal genus *Fusarium*. The heterologous expression of the pathway leading to the production of bikaverin was achieved by Zhao et al. (2020) in the article *Pathway engineering in yeast for synthesizing the complex polyketide bikaverin*. The bachelor project will work with optimization of the production of bikaverin by fermentation. This optimization will initially be by testing out different media compositions but also with regards to different fermentation parameters. When a fermentation strategy has been developed on small scale, then 2L bioreactor fermentations will be carried out to optimize the production in batch, with the possibility to try a fed batch to fully develop the production of bikaverin. The project will work with quantification of bikaverin by HPLC-UV/VIS methods but if possible then purification of bikaverin will also be carried out.

Contact Kresten Jon Korup Kromphardt (kkro@pha.dk) for more information about this project.