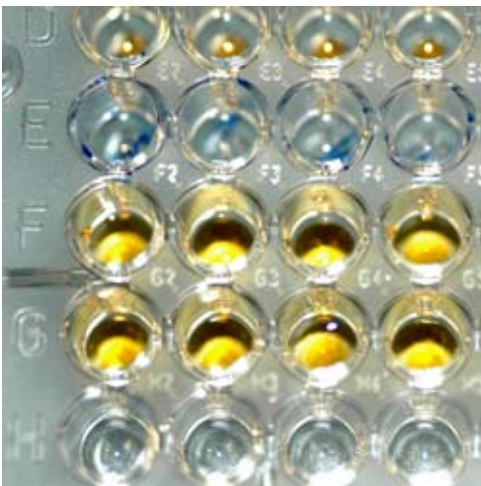


## KEYWORDS

- » Industrial Biotechnology
- » Biodiversity
- » Expression Systems



## Industrial Biotechnology

The research field of the junior research group "Weiße Biotechnologie" is the development of methods for the screening for new enzymes in the environment and for the efficient production of these proteins. For that purpose large (meta-)genomic libraries from various microbiological habitats as soil samples, a grease separator from a canteen kitchen or a compost heap will be constructed and initially screened for new lipases and esterases. First new, up to now complete unknown enzymes were already found and their further characterization was started.

For the search for potential toxic proteins as proteases a cell-free screening system will be established and a proof of concept with a genomic library of bacillus subtilis was shown.

Assay systems for the screening for new enzymes for the application in biocatalysis – lipases, monooxygenases – and biosensor systems – glucose sensor – were established and evaluated using example enzymes.

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