

**Project:** Enzyme conjugation for enhanced adsorption

**Project description:** Biocatalysis has emerged as an important technology in green and sustainable synthesis of pharmaceuticals, vitamins, flavor and fragrances. However, enzymes often lack a long-term stability that is needed at an industrial scale and their recovery and reuse is challenging. Enzyme immobilization can often minimize these issues. Supports for immobilization include biopolymers, such as polysaccharides, or inorganic solids, such as silicas. Enzyme immobilization at surfaces is also an important step in sensor technology.

In this project, the student will use wet lab techniques to modify an enzyme and characterize the product in terms of structure and activity. During the project the student will get some experience with different experimental techniques for the characterization of macromolecules and their interactions with surfaces.

**Qualifications:** Some experience in the lab and interest in learning more. Basic knowledge on macromolecule conformational properties (TFY4310) can be helpful but is not required.

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**Deadline:** Unspecified