

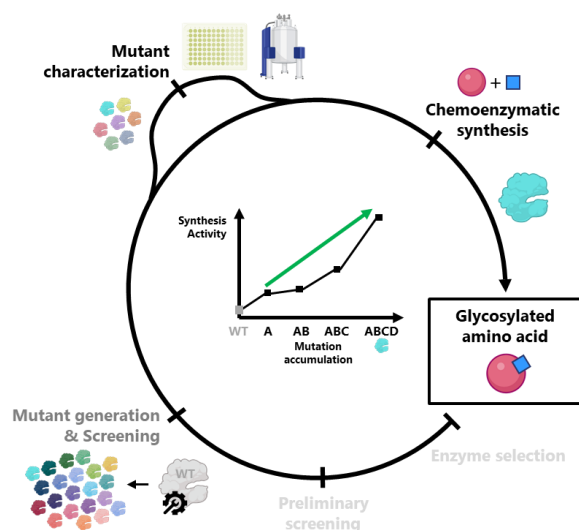
ENZYME-BASED CATALYSIS

Subsite mapping of the transglycosylation/hydrolysis partition in glycoside hydrolases:
Application to enzymatic synthesis of glycosylated amino acids

Master's (M2) Thesis/Final-Year Engineering Internship at TBI (Toulouse, France)

The Toulouse Biotechnology Institute (TBI) is currently seeking to recruit a staff member to join a research project focused on **enhancing the transglycosylation activity of a target enzyme** through a **semi-rational protein engineering approach**. The student will be actively involved in protein production in *E. coli*, purification, and biochemical characterization of mutant enzymes.

This internship is part of a 2nd year PhD project and will take place within TBI's Biocatalysis Department, which has strong expertise in enzyme engineering.



REQUIRED QUALIFICATIONS AND SKILLS: Candidates (open to second-year Master's (M2) students or equivalent) should hold a Master 1 or equivalent degree in biochemistry, molecular biology or related subject, such as protein engineering.

ACQUISITION OF NEW SKILLS: The successful candidate can expect to acquire new skills in **molecular biology** (*in vitro* mutagenesis), **protein production** and **purification techniques**, and **analytics** (e.g. colorimetric assays and NMR).

STARTING DATE: January/February 2026.

LENGTH/PERIOD: 6 months (flexible to suit degree requirement).

KEYWORDS: Biocatalysis, Enzyme engineering, Structure/function relationships, Carbohydrates.

TO APPLY: Send a CV and a cover letter to Daphné Gonnet (gonnet@insa-toulouse.fr) and Régis Fauré (regis.faire@insa-toulouse.fr).