

## Master thesis project II – Engineering of calcium-dependent proteins

Within the field of protein technology, new valuable proteins are constantly being developed with the aim to be used for detection of numerous diseases, as treatment for various diseases and to aid production of protein therapeutics. By modifying existing proteins, specific desired properties and improved functionality can be obtained. In our group, we work with protein engineering and the focus lies in developing calcium-dependent proteins to be used for antibody purification. Recently, a combinatorial library of many different variants of calcium-dependent proteins was created with the aim to display these proteins on the surface of bacterial cells and be able to select for a variant with desired characteristics. Our vision is that a calcium-dependent antibody-binding protein could enable a milder means of purifying therapeutic antibodies resulting in a more cost efficient and environmentally friendly manufacturing of biopharmaceuticals.

Currently, we are working with creating a new library of calcium-dependent proteins and perform selections using cell sorting to improve on variants that was previously discovered. The master thesis project we have in mind will result in useful experience with many different laboratory techniques applicable in any lab such as cloning, flow cytometry and protein production, purification and analysis.

If this sounds of interest to you, don't hesitate to contact:

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