

Project idea:

## Predictive Modelling of Enzyme Activity

Finish goods enzyme formulation is based on documented addition - defined as accurate volume addition of enzyme concentrates and raw materials. Enzyme concentrate is stored at strategic postponement points in tank containers. Enzyme activity degrades over time correlated to time and temperature.

To control and ensure accuracy in incoming materials all stored concentrates are part of a reoccurring sampling program, updating enzyme activity with a predefined frequency. It will have a huge business impact if we can predict enzyme activity over time and at/online measure to confirm prior to use eliminating hundreds of samples and reducing off-spec rate in Liquid formulation. Today 25% of internal of spec comes from activity.

Scope: Develop model for predicting enzyme activity based on historical data and develop a measurement system to confirm activity prior to use.

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*The present proposal from the company is an invitation to collaboration. The project will be planned, scoped and modified in close collaboration with the university supervisor in order to get the best possible project. The formal application procedure (and application deadline) for a Helix Lab Fellowship must be followed. All applications will be evaluated by the Helix Lab Board before a Fellowship may be given. Read more on our web-site, [Helixlab.dk](http://Helixlab.dk)*