Chemical Proteomics App

Title: Integration of chemical proteomics app into a chemical proteomics workbench app

Type: BA, IDP

Category: [Infrastructure | UI | Data Science]

Programming language: [R | SQL | JS]

Language: [German | English]

Prior experience: [experience with R required, biological/chemical knowledge is not required]

Complexity/Risk: [low]

Contact person: Mathias Wilhelm

Brief background description: Over the course of the last years, we have developed multiple internal R shiny apps that guide and assist wet-lab scientists in the interrogation and analysis of chemical proteomics datasets. This includes for example binding curve fitting, visualization, classification, and selectivity calculation.

Brief description of the project: The goal of the project is to integrate and extend our current repertoire of apps to handle chemical proteomics data into a single “workbench”, allowing scientists to analyze their data in a single one-stop-shop app. This will require the integration and adjustment of existing apps and creating extensions for them. One possible avenue for extension is the integration of functionality available in ChemminR.

Expected result: This project should lead to a fully functional tool usable by all chemical proteomics scientists in our lab. Depending on the results, it might be possible to publish the app in conjunction with a scientific publication.