

Analysis of new Olink proteomics data from S3WP: toward multi-omics integration

QC and platform comparison completed. The main analysis of Olink HT is ongoing.

- Active discussion with my supervisor, both online and in person.
 - o Interpret results and suggest suitable analysis methods
 - o Outline the report
- Project activities: mostly R programming

QC plots, assessment of the longitudinal stability of the plasma proteome across visits. ANOVA analysis to assess the variance explained by known metadata.

Recent analysis results reflect both the quality control and the central analysis of the new Olink HT data. For example, the UMAP of the plasma proteome across visits, for QC purposes, reveals potential outliers and dominant trends of the data set as a whole, and for longitudinal analysis, suggests the stability of subjects' profiles across different visits. The QC process has provided initial insights and assessment of the data set to ensure normal, high-quality data for good downstream analysis. Besides, based on the data structure, suitable analysis methods will be considered to best extract meaningful information. Each analysis results in informative messages printed to the console or a detailed plot with annotation. Additionally, statistical tests and significant levels are calculated if possible to control the reliability of the results.

[illegible]