

## • COVID-19, Biobanks and NMR

Covid samples are challenging for Biobanks:

- Samples are infectious
- Samples often taken under stress conditions to be useful high quality is needed
- QC is especially important in order to allow across biobank integration of samples for research and clinical trials

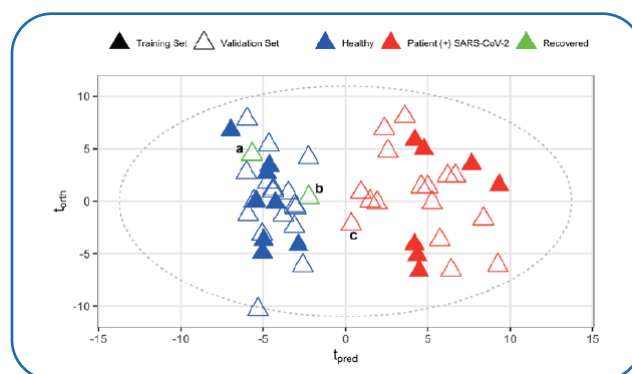
NMR offers comprehensive QC of COVID samples to be stored.

In addition NMR generates completely standardized Spectral data as part of the QC, that can be put into the biobank in addition to blood or Urine samples.

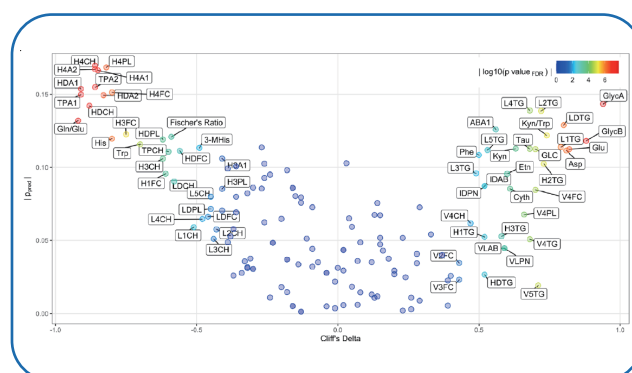
Publication in JPR shows research results using NMR to

- Use phenoconversion (metabolomics based) infection detection
- Access Post-COVID-Syndrom (Long COVID) risks
- In addition NMR use for severity prediction can be investigated

<https://dx.doi.org/10.1021/acs.jproteome.0c00519>



OPLS-DA separating healthy, COVID positive and recovered patients



Markers separating Healthy and COVID positives indicate prediabetes, liver damage, lung damage Cardiovascular risks, often remaining after recovery