

The Clinical Proteotype Analysis Center, ETH Zurich

The PHRT Clinical Proteotype Analysis Center is a comprehensive and coordinated effort to accelerate the understanding of the molecular basis of disease/wellness, through the development and application of robust, quantitative, mass spectrometry-based strategies. The base technology of the platform is SWATH/DIA mass spectrometry,

The PHRT Clinical Proteotype Analysis Center provides knowhow, team, technologies, facilities and logistics to convert large sample cohorts of clinical specimens into digital representations of their molecular makeups (proteotypes) suitable, along with their clinical/phenotypic metadata, for further *in silico* research. Whereas the basic offering from the center consists of:

- Converting patients-derived peptide samples into quantitative protein matrices via a Data-Independent Acquisition (DIA) MS workflow and fast-track data analysis following SPHN Data Privacy and IT Security regulations
- Enabling shareability of the generated data within the PHRT/SPHN network according to the relevant data management guidelines as put forward by BioMedIT.

The center also provides assistance at all stages of a project on a collaborative basis, including

- experimental design, grant and manuscript preparation
- sample preparation for clinical proteotype analysis (cells, biofluids and tissues)
- deep track data analysis:
 - generation of more comprehensive spectral libraries (e.g. sample fractionation, pseudoDDA-based approaches, error-tolerant searches for the identification of post-translational modifications, ...)
 - custom normalization / batch effect removal
 - proteogenomics analyses
 - machine learning based inference of signals of interest from the cohort proteotype
 - data visualization
 - and more generally custom data analysis workflows

The PHRT Clinical Proteotype Analysis Center operates on a full cost model for research & industry. Pricing includes standard sample preparation, spike-in standards, acquisition and fast track analysis. Additional analysis will be quoted/billed separately upon request.

Sample number	Academic pricing (CHF/sample)*	Industry pricing (CHF/sample)*
1-20	1000	3000
20-100	800	2400
100	600	1800

*Biospecimen requiring non-standard sample preparation will require a separate quote.

Team Clinical Proteotype Analysis:

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