Datenmanagement ProtCF



Proteomik Plattform - Core Facility (ProtCF)

Data Management:

An integral part of every proteomics project is the comprehensive bioinformatic and often also biostatistical analysis of the generated data. All datasets—including raw data (e.g., .raw files, .d files)—generated after mass spectrometry are assigned a unique, sequential identifier. These raw data are archived on a server together with the corresponding project number.

In addition, a project-specific PDF documentation is stored for each project. This includes the scientific background, experimental design, details of sample preparation and allocation, the measurement procedure, and notes on the data analysis performed.

All complete project data are stored on the institute's dedicated proteomics server pat-proteomic at the Institute of Surgical Pathology within the hospital network. As a RAID system, it is protected against the failure of individual hard drives. The institute's IT department ensures reliable operation of the server through regular maintenance, security updates, and compliance with current standards for stability and cybersecurity (e.g., firewalls). An automatic incremental backup of the entire server is performed every night. This backup is carried out every 24 hours onto a separate storage system (patags-bds, also a RAID system) with a capacity of over 152 TB, located in a secured server room in a different building.

Users receive both the project number and the specific identifiers of each measurement, which are also reflected in the filenames of all associated files (including the delivered results). This allows complete traceability of all project details, intermediate analysis files, and final results—even years later. All data are automatically stored on the server for a minimum period of ten years. Naturally, users are contacted multiple times before any potential data deletion.

In agreement with the users, published datasets are also deposited in appropriate public repositories (e.g., ProteomeXchange), making them permanently accessible to the scientific community.

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