**Research projects focused Laboratory Information Management System**

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Multi-project research-focused laboratories like core facilities may face challenge to register, track, integrate and monitor samples and their analyses. These data contain personal information, so secure storage and access has high priority, also due to new European legislation. To face these challenges, we have developed a web-based Laboratory Information Management System (LIMS) optimized for multi-project laboratories.

LIMS is web-based application for facilitate storage and bioinformatic analysis of genomic data with emphasis on security of genomic and personal information. Additional computational cluster provides bioinformatic analyses over anonymized genomic data without personal identifiers. Summary analysis reports are immutable to change, but with the possibility of repeated reanalysis in case of upgrades of computational pipelines, as the system is easily extensible over new types and versions of data analysis pipelines.

One instance of LIMS can be used to manage several independent projects, with ability to assign user roles for each project separately. This restricts user to access only those projects, samples and analysis, which they are assigned to. Thus, we can collect a large genomic data sets in a single system, which allows to perform wide-scale population studies that are based on aggregation analyses over large cohort of individuals.

LIMS has an implementation of suggested diseases based on phenotypes terms from HPO database, which may further assist physicians in decision process.