Roche Presents Data from Biognosys for Use of Discovery Proteomics in Clinical Trials

Roche presents data from a mock clinical trial study suggesting that next-generation discovery proteomics is ready for use in clinical trials.

April 4, 2019 – PALM SPRINGS, (CA – U.S.A.) and SCHLIEREN, (ZH – Switzerland). Clinical researchers may soon be able to directly measure and quantify thousands of proteins from patient tissues in clinical trials using next-generation label-free proteomics technology developed by Biognosys, a Swiss proteomics company.

This was suggested by a presentation of a collaborative study led by Dr. Axel Ducret (F. Hoffmann-La Roche Ltd) at the MSACL 2019 conference (Mass Spectrometry Applications to the Clinical Lab) in Palm Springs. Biognosys contributed data to a mock study that mimicked implementation of discovery proteomics in a clinical investigation framework. The 30 FFPE colorectal cancer (CRC) tumor specimen data set was representative of samples obtained in clinical trials. The data was investigated using both a targeted and a discovery proteomic strategy.

The data provided by Biognosys was generated using the next-generation data-independent acquisition technology; a label free mass spectrometric method that combines parallel acquisition of peptide signatures with targeted data analysis. Identification of proteins is based on large libraries of high-quality reference peptide spectra, which allow for precise relative quantification.

Direct protein expression data provides an important complement to transcriptome analysis, which is often used as a proxy for global protein expression. In this study, close to 9,000 proteins were identified with median technical %CVs well below 10%, providing sufficient statistical power to detect subtle changes in protein expression that may occur in tumor tissue.

Dr. Claudia Escher, COO at Biognosys says: "We work with many of the most innovative pharma and biotech companies, who use our discovery proteomics services to advance their early-stage research programs. We increasingly see an interest in using our technology further into the clinical trial phase. We are excited about the perspective that discovery proteomics can soon be an integrated part in clinical trials, and Biognosys is dedicated to bring it to the market".
This study lays the foundation for a discovery proteomics pipeline that can be operated and documented according to GCP guidelines and applied to support the design of more effective and efficient clinical trials.

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About Biognosys:
Biognosys is a leader in next-generation proteomics, dedicated to transforming life science research by making the most advanced proteomics tools available to researchers. The company offers a suite of products and services to decode the proteome and equip researchers from all fields with a deep view of protein expression in cells, tissues, or body fluids. Biognosys’ technology is based on high-resolution mass spectrometry, combined with a novel parallel signal processing approach, for unprecedented quantification of large proteomes in a single experiment. More information at: www.biognosys.com