

## Biognosys Announces Development Roadmap for Large-Scale Discovery Proteomics in Plasma

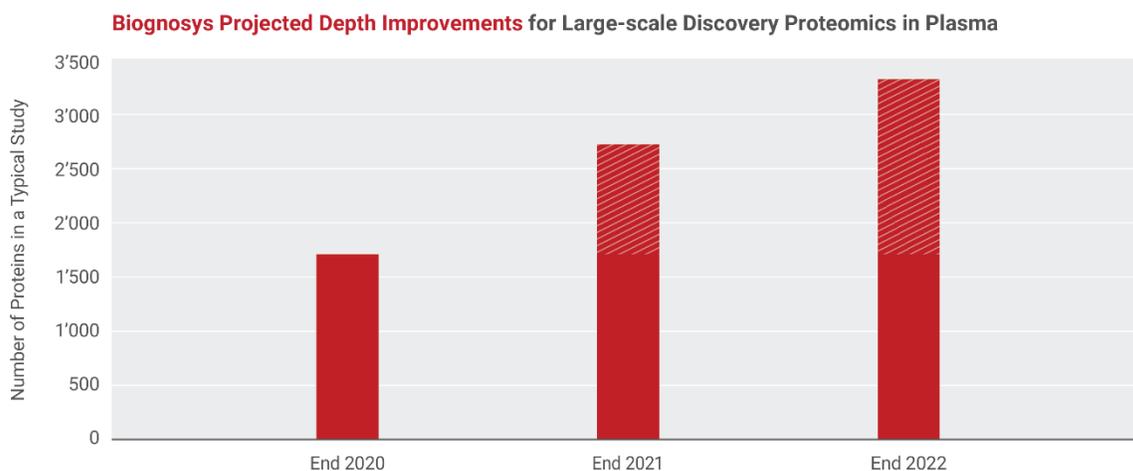
Through this development, Biognosys continues to advance industry standards for specificity and depth in plasma

**4 March 2021 – SCHLIEREN (Zürich – Switzerland).** Biognosys, a leader in next-generation proteomics solutions for drug discovery and development, announces today its R&D roadmap for the further development of plasma proteomics as an unbiased, true discovery offering for large-scale applications.

Whereas in tissue, approximately 80% proteome depth coverage is reachable today, plasma is known to be a less approachable sample type with a huge dynamic range from high-abundant plasma proteins to cytokines.

Based on exciting interim results of our R&D pipeline, Biognosys anticipates making large steps in depth of the detectable plasma proteome in the near future through continuously optimized workflows for sample preparation, chromatography, and mass spectrometry (MS) as well as data analytics algorithms empowered with Artificial Intelligence and Machine Learning.

With our true, unbiased discovery proteomics approach, we comprehensively analyze study samples on a **total search space of over 20,000 proteins** and an unlimited number of modified peptides or sequence variants.



**Currently, we achieve around 1,700 quantified proteins per study** with one injection per sample. The number can be higher in some cases because our technology also identifies proteins that are not expected to be secreted into the blood. **By the end of 2021**, we will roll out our next-generation discovery workflow that will bring us to around **2,700 proteins** quantified in a typical

study. With the developments in our early-stage R&D pipeline, we expect to achieve a depth of about **3,300 proteins by the end of 2022** for large-scale plasma discovery studies.

With this roadmap, **Biognosys continues to advance industry standards for specificity and depth for large-scale discovery proteomics** in both plasma and tissue. Moreover, MS-based proteomics is known to have higher specificity than antibody- or aptamer-based proteomics approaches.

With our new extended facility of 900 square meters (9,687 sqft) in Switzerland, we are able to scale up our throughput for large-scale discovery proteomics from 80,000 samples per year or 220 samples per day to **250,000 samples per year or 685 samples per day**.

**Lukas Reiter, PhD, CTO of Biognosys, comments:** “The huge dynamic range of the plasma proteome compared to tissue is a known challenge. Thanks to our continuous R&D efforts, Biognosys recently achieved industry-leading proteome depths in plasma, which were previously unthinkable using LC-MS.”

**Oliver Rinner, PhD, CEO of Biognosys, states:** “These huge improvements in-depth and throughput of our technology, specifically in plasma, position Biognosys as a partner of choice for large-scale discovery proteomics studies involving thousands of samples. Mass spectrometry is unique in its ability to enable unbiased discovery of changes in protein quantities, protein variants, or in the future, even subtle structural changes. The targeted approaches that were used in the past have captured only a small part of the proteome. Blood is the window to almost all physiological processes, and our technology will unlock completely new insights and discoveries.”

## About Biognosys

Biognosys is a leader in next-generation proteomics, dedicated to transforming life science research by developing the most advanced proteomics tools and making them available for pharmaceutical and biotech research and development. 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 and regulation 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](http://www.biognosys.com)

## Media Contact

**Lukas Reiter, PhD**

Chief Technology Officer

Phone +41 (0) 44 738 20 40

[lukas.reiter@biognosys.com](mailto:lukas.reiter@biognosys.com)