



Landmark studies utilizing Olink® Explore technology signal a new era for population-scale proteogenomics

October 5, 2023

UPPSALA, Sweden, Oct. 05, 2023 (GLOBE NEWSWIRE) -- Olink Holding AB (publ) (Nasdaq: OLK) today reported the publication of three articles in the prestigious scientific journal, *Nature*, that demonstrate the power of the Olink Explore platform for driving impactful proteogenomic studies at the population scale.

The studies each used data generated from the UK Biobank Pharma Proteomics Project (UKB-PPP), whereby 13 biopharmaceutical companies generated new proteomic data from accessing the UK Biobank. Using the Olink Explore platform, researchers measured around 3,000 proteins in more than 54,000 UKB participant samples. By combining genomic and proteomic analyses at an unprecedented scale, a wealth of new information is available on the genetic effects on protein expression and phenotypic outcomes. The findings illustrate the immense value of proteogenomics in elucidating biological mechanisms, identifying actionable new biomarkers, and accelerating drug development efforts.

The flagship paper by [Sun et al.](#) from the UKB-PPP consortium provides the first detailed summary of the data, accompanied by downstream GWAS-based proteogenomic analyses, protein quantitative trait loci (pQTL) mapping, cross-sectional disease associations, and proteomic predictions of demographic factors and physiological functions. By uncovering over 14,000 genetic associations with protein expression levels, 81% of which are novel, their findings from this landmark paper clearly show the importance of high-throughput protein measurements for identifying important biological pathways and their impact on health.

"This momentous study offers whole new avenues of research to the biomedical community, and is a leading example of how cross-sector collaboration can bring about results that are so much greater than the sum of their parts," said **Professor Naomi Allen, Chief Scientist of UK Biobank**. "All of these data will soon be available to bona fide researchers across the globe, alongside the existing genomic, lifestyle and health data that UK Biobank holds for its 500,000 volunteers. I am excited for researchers to use these data to identify patterns that could transform our understanding of how diseases develop, and to identify potential new treatment pathways."

A second paper by [Dhindsa et al.](#), primarily authored by consortium members from AstraZeneca, used the dataset described in the flagship paper to study genetic associations of rare protein-coding variants with protein expression. The results shed light on the vital role of rare variants in plasma protein level variation and biological outcomes, further underscoring the crucial need for large-scale proteogenomic studies to enable such discoveries.

Dhindsa *et al.* stated in the article, "We highlighted several examples of how this protein-coding pQTL atlas can address drug discovery and clinical pipeline challenges. We anticipate that this resource will provide novel insights into protein regulatory networks, upstream trans regulators of target genes whose inhibition could increase target protein levels, target safety assessments and drug repositioning opportunities."

The third article by [Eldjarn et al.](#) describes a study where the Olink-generated results in the UKB-PPP dataset were compared to the proteogenomic analysis of a large Icelandic population cohort using an aptamer-based technology. While both platforms identified a large number of genetic associations with protein levels, a significantly higher proportion of the proteins measured using Olink (72% versus 43% when using the aptamer-based technology) had *cis*-pQTLs associated with them, providing strong genetic corroboration for superior specificity of the Olink assays. Furthermore, median CV ratios were lower for the Olink assays, indicating they were more precise on average.

"Olink is extremely proud to have been exclusively selected as the proteomics technology platform for this UKB-PPP initiative and we are delighted to see the first published output from this excellent team of collaborators," said **Jon Heimer, CEO of Olink**. "These landmark publications are a powerful demonstration of how next-gen proteomics can reveal crucial biological insights not seen with traditional genomics alone. We are witnessing a new multi-omics era that will enable an unprecedented level of understanding of real-time human biology and drive the future of 21st century healthcare and drug development efforts."

More details are available on the Olink website.

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About Olink

Olink Holding AB (publ) (Nasdaq: OLK) is a company dedicated to accelerating proteomics together with the scientific community, across multiple

disease areas to enable new discoveries and improve the lives of patients. Olink provides a platform of products and services which are deployed across major pharmaceutical companies and leading clinical and academic institutions to deepen the understanding of real-time human biology and drive 21st century healthcare through actionable and impactful science. The Company was founded in 2016 and is well established across Europe, North America and Asia. Olink is headquartered in Uppsala, Sweden.

About UK Biobank

UK Biobank is a large-scale biomedical database and research resource containing de-identified genetic, lifestyle and health information and biological samples from half a million UK participants. It is the most comprehensive and widely-used dataset of its kind, and is globally accessible to approved researchers who are undertaking health-related research that is in the public interest. UK Biobank is helping to advance modern medicine and enable better understanding of the prevention, diagnosis, and treatment of a wide range of serious and life-threatening illnesses – including cancer, heart diseases and stroke. Over 30,000 researchers from more than 90 countries are registered to use UK Biobank and more than 9,000 peer-reviewed papers have been published as a result. UK Biobank is supported by Wellcome and the Medical Research Council, as well as the British Heart Foundation, Cancer Research UK and the National Institute for Health and Care Research.

Forward-looking statements

This press release contains express or implied “forward-looking statements” as defined under the Private Securities Litigation Reform Act of 1995 that are based on management’s beliefs and assumptions and on information currently available to management. All statements contained in this release other than statements of historical fact are forward-looking statements. In some cases, you can identify forward-looking statements by the words “may,” “might,” “will,” “could,” “would,” “should,” “expect,” “intend,” “seek,” “plan,” “outlook,” “objective,” “anticipate,” “believe,” “estimate,” “predict,” “project,” “potential,” “continue,” “currently,” “ongoing” or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words. These statements involve risks, uncertainties and other factors that may cause actual results, levels of activity, performance, or achievements to be materially different from the information expressed or implied by these forward-looking statements. These risks, uncertainties and other factors are described under the caption “Risk Factors” in our Form 20-F for the fiscal year ended December 31, 2022 (Commission file number 001-40277) and elsewhere in the documents we file with the Securities and Exchange Commission from time to time. We caution you that forward-looking statements are based on a combination of facts and factors currently known by us and our projections for the future, about which we cannot be certain. As a result, the forward-looking statements may not prove to be accurate. The forward-looking statements in this press release represent our views as of the date hereof. We undertake no obligation to update any forward-looking statements for any reason, except as required by law.