

Nightingale Health and UK Biobank announce major initiative to analyse half a million blood samples to facilitate global medical research

Comprehensive metabolic biomarker profiles of the world's largest health database to be analysed in 30 months.

Nightingale Health, the Finnish innovator of an internationally recognized blood biomarker technology for studying chronic diseases, will analyse the biomarker profiles of 500,000 blood samples from UK Biobank. The ground-breaking research initiative was announced today at the UK Biobank Scientific Conference 2018 in London.

Nightingale's biomarker profiling technology will be used to analyse UK Biobank blood samples by measuring metabolic biomarkers that recent studies have found are predictive of future risk for heart disease, type 2 diabetes and many other common chronic diseases. Until recently, technological constraints and prohibitive costs have prevented the analysis of comprehensive metabolic data from large-scale biobank collections, but this process has been made viable by Nightingale's technology, which measures over 200 metabolic biomarkers in a single blood test.

This initiative will further enrich the world's most detailed public health database provided by the UK Biobank.

Professor Sir Rory Collins, UK Biobank's Principal Investigator, said the commitment by Nightingale to perform these assays would allow researchers around the world to advance health research more quickly. He expects the combination of these biomarker data with the detailed health information that participants have already provided to generate many new insights. "We are delighted to see these novel blood sample analyses being done in UK Biobank," said Professor Collins. "We already have an enormous amount of information about the lifestyles and genetic make-up of the participants in UK Biobank, as well as about their health, and are currently conducting imaging studies of their brains, hearts and bodies. Providing the medical research community with these additional high quality metabolic biomarker data on such a large scale will enhance discovery science and population science, providing opportunities to benefit patient care and public health."

"Analysing 500,000 blood samples from a single study with Nightingale's comprehensive biomarker profiling technology allows us to uncover metabolic signatures that reflect a risk for future disease onset, as well as their underlying risk factors. We anticipate this detailed molecular readout of the health state, combining both lifestyle and genetic makeup, will result in a wealth of scientific applications from the research community. This will be relevant not only to the British population but also yield ground-breaking science and enhanced drug development opportunities with a global public health impact," said Dr. Peter Würtz, Scientific Director and Founder, Nightingale Health.

Nightingale Health's technology has been previously used to analyse more than 500,000 blood samples from over 200 cohort studies and clinical trials around the globe, with more than 150 peer-reviewed publications showcasing how the detailed metabolic biomarker data provide novel insights into health and disease.

"Nightingale's mission is strongly linked to scientific evidence generation. This means working with world-leading institutions and biosample collections to continuously improve the understanding of health and disease. Our aim is to translate this understanding into improved early prediction of diabetes and cardiovascular diseases, achieving better healthcare for everyone. Our initiative with the UK Biobank demonstrates Nightingale's unwavering commitment towards supporting innovative medical science carried out by researchers from across the world," said Teemu Suna, CEO and Founder, Nightingale Health.

The initiative corresponds to over 10 million EUR investment in UK Biobank and will be funded by Nightingale Health, with analyses of UK Biobank samples being performed at Nightingale's laboratory in Finland. In line with the founding principles of the UK Biobank, this metabolomic data will be incorporated back into the UK Biobank's resource following a 9 months exclusivity period for Nightingale Health and made openly available to the scientific community.

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About Nightingale Health

Nightingale Health Ltd. is the innovator of an internationally recognized NMR (Nuclear Magnetic Resonance) metabolomics technology, supplying biomarker analysis services for human serum, plasma, urine, CSF and umbilical cord blood samples. By measuring biomarkers from multiple pathways in a single experiment, Nightingale equips biomedical researchers with comprehensive insights into the effects of lifestyle factors and future disease risk, accelerating breakthroughs in precision medicine. The company is investing and working towards integrating its technology into clinical practice to bring about precision medicine, helping to empower patients to follow their own well-being and take proactive steps to stay healthy.

For more information, please visit <https://www.nightingalehealth.com>

About UK Biobank

UK Biobank is the most comprehensive resource of its kind in the world. Its 500,000 participants have provided information about their health, well-being and lifestyle, as well as blood and other biological samples for long-term storage and analysis. In addition, they have agreed to have their health followed through medical records for many years. Scientists from around the world are able to use the resource for research intended to improve the prevention and treatment of a wide range of common disorders. UK Biobank is funded by the Medical Research Council, Wellcome Trust, Department of Health, Welsh Government, Scottish Government, British Heart Foundation, Cancer Research U.K. and Diabetes U.K.

For more information, please visit <http://www.ukbiobank.ac.uk>