Press release

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Ground-breaking €50 million digital monitoring project to prevent disease

A pioneering European project aims to develop a system using small sensors worn on the body so that how well you walk, a vital sign of health and wellbeing, can be monitored and assessed as you go about your daily routine.

Mobility - how well someone walks - is considered the 'sixth vital sign' of health. This is because poor gait, especially walking slowly, is associated with earlier death, greater risk of disease, cognitive decline, dementia and an increased risk of falls.

Funded by the European Innovative Medicines Initiative 2 Joint Undertaking, the project, called Mobilise-D, aims to revolutionise assessment of mobility loss using digital technology to lead to enhanced clinical trials and better clinical management.

Clinicians and scientists from academic centres across Europe will collaborate with companies from the European Federation of Pharmaceutical Industries and Associations (EFPIA) - the goal is to develop, validate, and ensure regulation of better mobility outcomes.

The results of the project will directly lead to drug development and establish a roadmap for clinical implementation of new, complementary tools which will identify, categorize and monitor disability in patients. This will enable widespread, cost-effective access to managing conditions clinically through personalised healthcare.

The €50 million project includes 34 international research partners based at leading international universities and some of the world's largest pharmaceutical and technical companies. The project is led by Newcastle University, working closely with the lead EFPIA partner, Novartis.

Professor Lynn Rochester, Professor of Human Movement Science at Newcastle University is co-ordinating the Mobilise-D consortium. She said: "Digital technology, including sensors worn on the body, have the potential to transform how we assess mobility and identify life-changing conditions. This will enable medical teams to intervene earlier and offer treatment to extend healthy life."

Growing problem

In the EU, people over the age of 65 make up more than 19% of the population, a figure projected to rise significantly. Increasing life expectancy, coupled with the number of people living with chronic health conditions, means that more people are coping with mobility loss.

Better treatment of impaired mobility resulting from ageing and chronic disease is one of the 21st century's greatest challenges facing patients, society, governments, healthcare services, and science.

New interventions are a key focus but, to accelerate their development, better methods are needed to predict, detect and measure mobility loss.

Mobilise-D will focus on digital mobility assessment being recognized for the analysis and treatment of Chronic Obstructive Pulmonary Disease (COPD), Parkinson's disease, multiple sclerosis, hip fracture recovery, (Proximal Femoral Fracture, PFF), and congestive heart failure.

Professor Rochester added: "Digital tools that consistently and accurately measure the extent and nature of mobility loss are now within our technological reach. Once implemented, they will become a new and powerful driver for innovation in intervention, leading to an important and fundamental shift in the quality of healthcare that will extend well beyond Mobilise-D."

Mobilise-D will build an all-encompassing, clinically-valid digital mobility assessment system capable of use across all conditions where mobility loss is relevant and bring with it a personalised approach to healthcare for the benefit of citizens in the EU and globally.

 "Our ultimate goal is to provide a validated, robust set of algorithms to measure digital mobility outcomes and in turn, inform therapeutic development, clinical practice, precision medicine, industrial development and stakeholder approval."

Ronenn Roubenoff, Global Translational Medicine Head, Musculoskeletal Disease at Novartis Institutes for Biomedical Research, who serves as the industry project lead of Mobilise-D, said: "The results of Mobilise-D will facilitate drug development, develop a roadmap for clinical implementation of innovative tools to identify, stratify, and monitor disability in patients, and enable cost effective, wide access to clinical management and personalised healthcare.

"A key immediate impact will be on the design of clinical trials for novel treatment development, supporting better patient inclusion & stratification, more sensitive clinical outcomes, a potential correlation of real-world patient reported outcome for evidence-based healthcare. Mobilise-D will also bring the key ingredient needed for any medical technology to blossom: standardization, in turn stimulating development of novel solutions."

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NOTES FOR EDITORS:

Website: please link any story to this website which will be live by 11th April: www.mobilise-d.eu

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