New EU-funded project REBECCA to improve post-treatment in breast cancer

REBECCA, **RE**search on **BrE**ast **C**ancer induced chronic conditions supported by **C**ausal **A**nalysis of multi-source data, is a new project funded under the European Union's Horizon 2020 research and innovation programme. REBECCA aims to tap into the potential of Real-World Data to support clinical research and to improve existing clinical workflows.

REBECCA will combine clinical data with data describing patients' real-life behaviour including their physical activity, eating habits and sleep as well as information related to their online interaction. These new forms of Real-World Data will become available thanks to the analysis of sensor and log data collected via mobile and wearable devices. Novel functional and emotional indices will be produced for each individual and their ability to characterise patient status and quality of life will be examined. REBECCA promotes the use of these indices as a tool for monitoring and optimising patient care and also as complementary outcomes during clinical research.

REBECCA 360º platform, a combination of minimally obtrusive, non-stigmatising mobile applications will be offered to breast cancer survivors as a means of supporting their everyday life and enhancing their interaction with health experts. The same system will be able to collect details of patients functional and emotional status during their participation in clinical research campaigns.

The REBECCA 360º platform with the full support of sensitive data preservation and protection will be deployed within 7 clinical studies in 3 countries, Norway, Spain, and Sweden, involving over 650 individuals, and it will help shape future guidelines and practices for post-cancer treatment. Best practices resulting from the studies will be disseminated to researchers, public health and regulatory bodies throughout Europe.

Data collected by REBECCA will be processed by innovative Causal Analysis models focusing on the complex array of chronic comorbidities developed during breast cancer recovery, overcoming many of the limitations of traditional Randomised Controlled Trials.

"In the era of Internet of Things, Big Data and Machine Learning it seems that clinical research can go beyond Randomised Control Trials. Real-world interventions may differ from the idealised Randomised Control Trials interventions, monitoring patients in their Real Life conditions closes the gap."

Prof. Anastasios Delopoulos, Coordinator of REBECCA

The REBECCA project kicked off in April 2021 and is set to last until March 2025, with a budget of 5.2 million EUR. It brings together 12 partners from 7 European countries, and is led by the Aristotle University of Thessaloniki.

The REBECCA project partners are:

- [Aristotle University of Thessaloniki](#) (Greece)
- [Karolinska Institute](#) (Sweden)
- [Stavanger University Hospital](#) (Norway)
- [Fundación para la Investigación del Hospital Clínico de la Comunidad Valenciana INCLIVA](#) (Spain)
- [Centre for Research and Technology Hellas](#) (Greece)
- [Harokopio University of Athens](#) (Greece)
- [INTRASOFT International](#) (Luxembourg)
- [Eight Bells](#) (Cyprus)
- [European Health Management Association](#) (Belgium)
- [Timelex](#) (Belgium)
- [The breast cancer society Amazona](#) (Sweden)
- [Region Stockholm](#) through [Karolinska University Hospital](#) (Sweden)

During 4 years, clinical and technological universities, industry leaders, public health experts, and patient associations will work together to shape guidelines and practices for post-cancer treatment.

Learn more about the REBECCA project at http://rebeccaproject.eu/.