Remote Assessment of Disease and Relapse - Alzheimer's disease

RADAR-AD

Currently, no treatment is available to stop the progression of Alzheimer's disease (AD). RADAR-AD is a European multi-stakeholder public-private consortium which explores the potential of digital technologies to improve the assessment of functional decline in AD. Better understanding of functional decline in people living with AD might also allow more customized and effective interventions, thus improving their quality of life. The project will run from January 2019 to July 2022 and is funded by the European Union and the European Pharmaceutical industry.

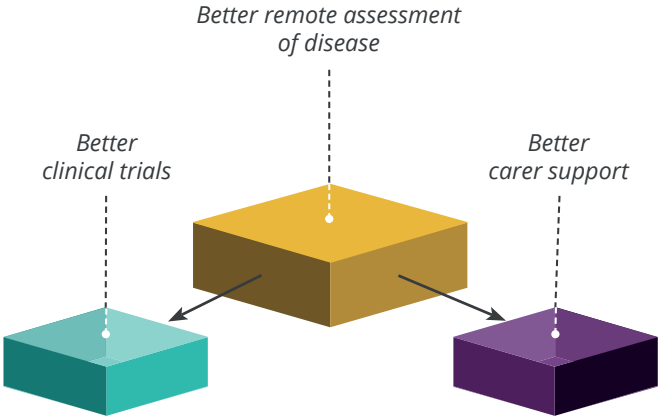
The selected devices will be validated in a multi-centre observational clinical study of 220 individuals of over 50 years of age across the AD spectrum. The RADAR-AD consortium is building on the efforts of the RADAR-CNS project, which studies the use of technology to help prevent and treat depression, multiple sclerosis and epilepsy. This research will share the experience, technology and large-scale data obtained with the RADAR-AD study.

Work to be done

- Model functional and cognitive decline using existing data
- Identify functional domains indicative of decline in people living with Alzheimer's disease
- Select digital devices and perform pilot studies
- Perform observational clinical study
- Liaise with people living with Alzheimer's disease, carers and regulators

Main goal

The development and validation of technology-enabled, quantitative and sensitive measures of functional decline in people living with Alzheimer's disease (AD).



Urgency

Today over 46 million people live with dementia worldwide. This number is estimated to increase to 132 million by 2050. Even though substantial and continuous research has been conducted on AD, these efforts have not yet delivered effective promising medicines, and the last few decades have seen many disease modifying agents fail expensively at later clinical stages. Particularly, despite considerable progress in our understanding of the underlying neurobiology of AD, this progress has not been translated into novel drug treatments that slow down the progression of the disease, but has only rendered medication which alleviates the symptoms of AD.

Opportunity

Current digital technologies, such as smartphones, wearables and home-based monitoring devices, allow us to sensitively measure functional decline in people living with AD. These digital technologies create the opportunity to identify digital biomarkers indicative of changes in functional status which

would provide far greater sensitivity and better signals for future dementia trials and improved care.

For and with people living with Alzheimer's disease

Our ultimate goal is the development and validation of technology-enabled, quantitative and sensitive measures of functional decline in people across the AD spectrum. We work in close collaboration with patient organizations and regulators to select the most relevant available devices that can sensitively measure early and clinically meaningful functional decline in people living with AD. Apart from the Patient Advisory Board appointed for RADAR-AD, we also work closely with an ethical advisor who advises us on our research choices and procedures.

RADAR-AD receives funding from the Innovative Medicines Initiative 2 Joint Undertaking under grant agreement No 806999. This Joint Undertaking receives support from the European Union's Horizon 2020 research and innovation programme and EFPIA. See www.imi.europa.eu for more details.

RADAR-AD is a public-private partnership funded by IMI, with representation from *academic institutions*, *small- and medium-sized enterprises*, *public organisations* and *pharmaceutical companies*.

People with Mild Cognitive Impairment, with Alzheimer's dementia and carers have been involved in the project through the Patient Advisory Board and the national Focus Groups. They provide relevant input on different issues which are important to RADAR-AD, such as the use of digital technologies for improvement of treatment and care of AD.

FACTS & FIGURES

RADAR-AD
A partnership consisting of 16 organisations from across Europe, including academic parties, SME's, regulators, and pharmaceutical companies

Participating countries
Belgium, Germany, Greece, France, Italy, Luxembourg, Portugal, Romania, Slovenia, Spain, Sweden, Switzerland, The Netherlands, The UK

Start date – January 2019

End date – July 2023

Coordinator
Prof. Dag Aarsland, King's College London

Industry project lead
Dr. Gayle Wittenberg, Janssen Pharmaceutica NV

Funder – Innovative Medicines Initiative 2 Joint Undertaking

Partners:

Clinical trial sites:

ARISTOTLE UNIVERSITY OF THESSALONIKI, Greece; FUNDACIÓ ACE, Spain; IRCCS CENTRO SAN GIOVANNI DI DIO, Italy; HÔPITAUX UNIVERSITAIRES GENÈVE, Switzerland; FACULDADE DE MEDICINA DA UNIVERSIDADE DE LISBOA, Portugal; CAROL DDAVILA UNIVERSITY OF MEDICINE AND PHARMACY, Romania; ZENTRALINSTITUT FÜR SEELISCHE GESUNDHEIT MANNHEIM, Germany; LJUBLJANA UNIVERSITY MEDICAL CENTRE, Slovenia; CENTRE HOSPITALIER RÉGIONAL UNIVERSITAIRE DE LILLE, France; KAROLINSKA INSTITUTET, Sweden; AMSTERDAM UMC, The Netherlands; UNIVERSITY OF OXFORD, The United Kingdom; KING'S COLLEGE LONDON, The United Kingdom.

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Contact information
If you have any questions about the project, please contact info@radar-ad.org or visit our website: www.radar-ad.org | @RADARAD7