

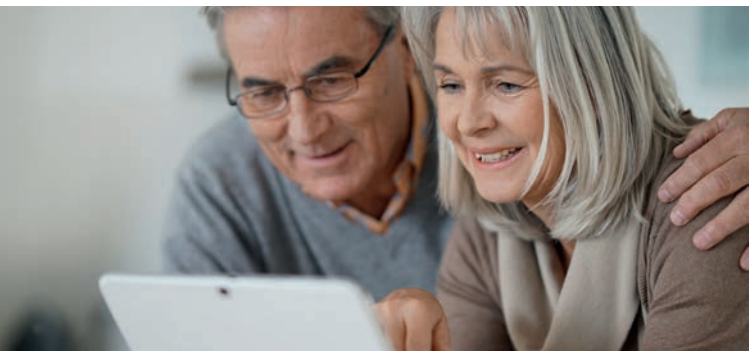


## Remote Assessment of Disease and Relapse - Alzheimer's disease



Currently, no treatment is available to stop the progression of Alzheimer's disease. 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 early 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 across the AD spectrum, aged 60-80 years. This consortium is a concerted effort running for a third year now and studying the use of technology to help prevent and treat depression, multiple sclerosis and epilepsy - the RADAR-CNS project. This research will share the experience, technology and large-scale data obtained for use in the RADAR-AD study.

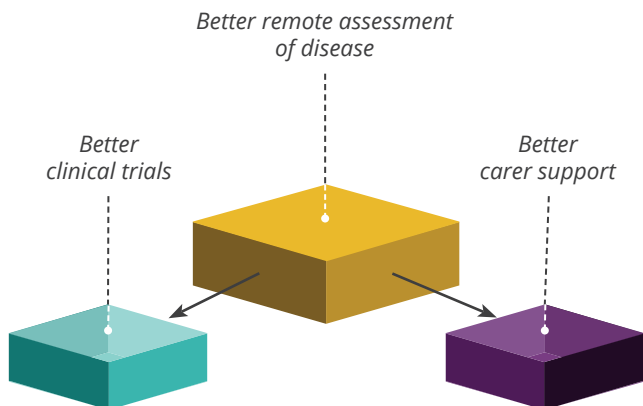


### **Work to be done**

- 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 early-stage 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 an 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 with early stage AD. 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 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.

#### **Disclaimer**

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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 living with Alzheimer's disease are represented in RADAR-AD by the *Patient Advisory Board*. This board actively consults people living with Alzheimer's disease and considers their perspectives on the use of digital technologies for improvement of treatment and care.

## 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 2022



**Coordinator** – Prof. Dag Aarsland, King's College London



**Industry project lead** – Dr. Vaibhav Narayan, 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.

## Contact information

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[www.radar-ad.org](http://www.radar-ad.org) | [@RADARAD7](https://twitter.com/RADARAD7)