10 YEARS OF BREAKTHROUGHS
A HEALTHIER FUTURE

EPAD
European Prevention of Alzheimer's Dementia Consortium

UNIVERSITY OF OXFORD

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Altering disease course before symptom onset: the European Prevention of Alzheimer's Dementia Longitudinal Cohort Study (EPAD LCS)

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Facts & Figures

Start date:	1 January 2015
End date:	31 December 2019
Contributions	
IMI funding:	25,880,000 €
EFPIA in kind:	27,160,286 €
Other:	6.431.736 €
Total cost :	59,472,022 €
Project website:	www.ep-ad.org
Social media:	@IMI_EPAD

Challenge

In 2015, it was estimated that **46.8 million** people lived with dementia worldwide. By 2030, this number was evaluated to increase to 75.7 million and reach a global cost of care of $2 trillion[1]. Alzheimer's disease (AD) is the leading cause of dementia globally accounting for as many as 60 ~ 70% of cases[2].

Today, our understanding of the cognitive and pathophysiological biomarkers of AD allows us to identify pathological changes ***after*** disease onset, but decades ***before*** the onset of symptoms[3]. This creates the opportunity to (1) intervene early on and (2) further our understanding of the risk factors that contribute to the probability of developing dementia[4].

Despite these advances, no disease-modifying drug has been approved for the secondary prevention or symptomatic treatment of Alzheimer's dementia in the last two decades[5].

Approach & Methodology

The EPAD Longitudinal Cohort Study (EPAD LCS) in alignment with the EPAD Proof of Concept (EPAD PoC) trial are the two strategies employed to address this challenge.

The EPAD LCS aims to provide:

- A well-phenotyped probability spectrum population for disease modelling.
- A readiness cohort and run-in data for pre-randomization purposes for the PoC.

EPAD LCS Data Collection:

Cognitive outcomes (RBANS, Dot Counting, Flanker, Favourites, Four Mountains and Virtual Reality Supermarket Trolley tasks)

Clinical outcomes (GDS, STAI, PSQI, AIADL)

CSF Biomarker outcomes

Neuroimaging outcomes (Core and Advanced MRI)

Genetic assessments

Biological samples (blood, urine, saliva)

Other Measures: Socio-demographics (e.g. age, education); Family history of AD; Height, weight , hip-waist circumference; Medical history (e.g. BISQ); Current medication; Lifestyle factors (e.g. HATICE, SNAC); Dementia diagnosed by the participant's physician; Mini-Mental State Exam; Clinical Dementia Rating; Physical exam (e.g. blood pressure)

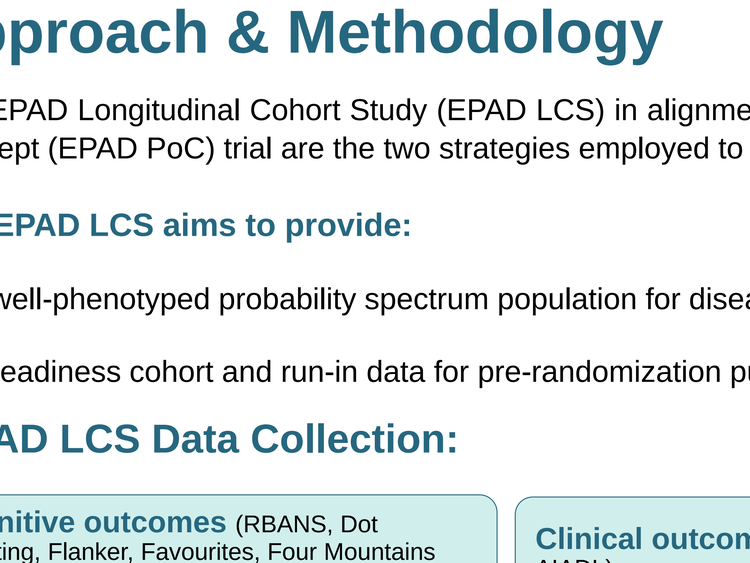

Figure 1. Study Diagram. Protocol EPAD-UoE-001. Protocol Version 3.0

Current progress

As of **September 12th 2018**, 21 Trial Delivery Centres have screened a total of 965 participants, of which 844 participants are successfully screened.

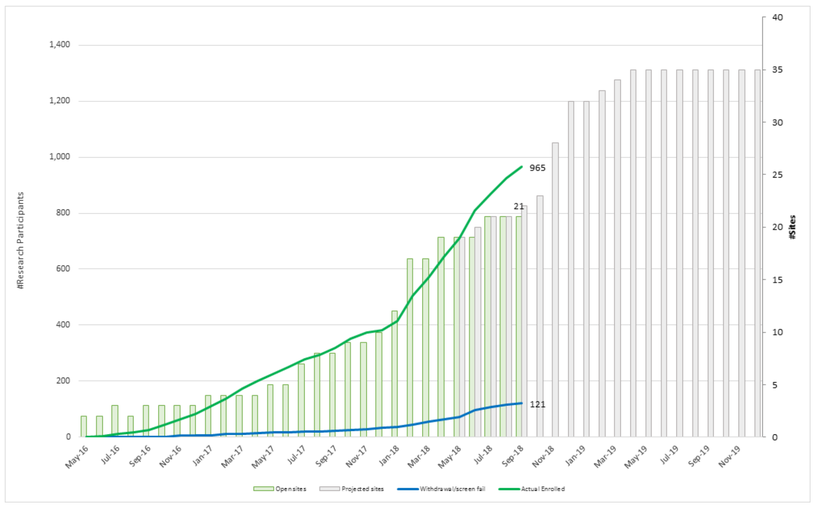

Figure 2. Enrolment Progress into EPAD LCS across all TDCs

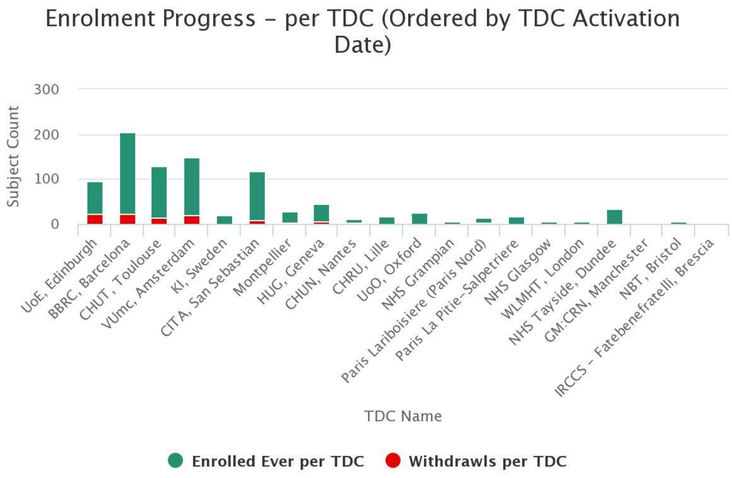

Figure 3. Enrolment Progress per TDC

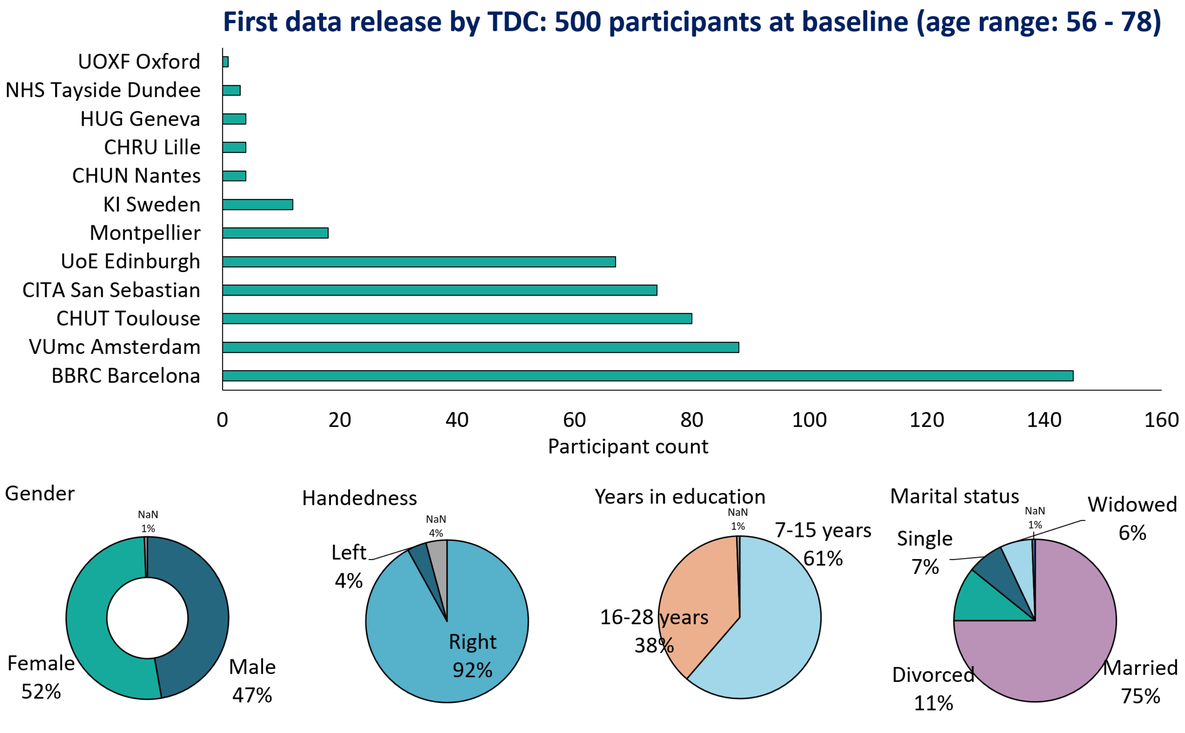

Figure 4. Summary of participant socio-demographics based on the first data release

Value of IMI collaboration

As an Early Career Researcher, it is a unique opportunity to be involved in the coordination of such a complex project, working alongside scientists, clinicians, statisticians, nurses and research assistants. It is through such collaborative work, that future PIs are faced with the opportunity to shape new ideas and advance today's work.

Impact & take home message

The EPAD LCS will generate the most comprehensive dataset for disease modelling, aiming to facilitate the development of new drug treatments for secondary prevention of Alzheimer's dementia.

See the **S**tatus of **E**nrollment in **EPAD (SEEPAD)** for recruitment updates: https://lcsgraphs.pr-epad.org/?api_key=81ef0cf19e8406c8c3900c5bd95ab75c

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References:

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