

Cognitive Health in Ageing Register: Investigational, Observational and Trial Studies in Dementia Research (CHARIOT): Prospective Readiness cOhort (PRO) SubStudy

The CPSS study was a prospective longitudinal, biomarker enriched study, in cognitively unimpaired (at baseline) adults aged 60-85. The study was conducted at Imperial College London, during the years of 2015-2024 and was sponsored and funded by Johnson & Johnson. Participants were followed up at six-monthly intervals, with extensive clinical and cognitive assessments, health and lifestyle questionnaires, and annual collection of biological samples. Functional and structural MRI and Amyloid PET scans (or CSF studies) were performed at screening. A neuro-imaging sub-study with 100 participants enrolled in years 2022-2024, comprising MRI and up to three Tau PET scans, was made possible through additional funding from Merck, Takeda and Gates Ventures. A three years' extension, termed as CHARIOT PRO: Longitudinal Study (CPLS) was initiated in March 2025, funded by Gates Ventures.

CPSS collection overview:

- A total of 409 cognitively unimpaired (at baseline) adults, 50.5% F, 49.5% M; >95% White population.
- Balanced for high vs low amyloid burden, based on PET or CSF pre-specified threshold.
- Follow-up: to 6.5 years.
- Deeply phenotyped cohort.
- Multi-omics and multi-platform blood-based biomarker assays on-going.
- Study data hosted on ADDI platform (September 2025).

Study Summary:

The Cognitive Health Register: in Ageing Investigational, Observational and Trial Studies in (CHARIOT): Dementia Research Prospective Readiness cOhort (PRO) SubStudy (CPSS),1 is a biomarker enriched, observational study of cognitively unimpaired adults in the UK, aimed at exploring and identifying factors and markers of risk for Alzheimer's disease (AD), through six monthly clinical, cognitive, functional and biological assessments in older adults aged 60-85 years, with high or below threshold brain amyloid burden (at screening).

Data and sample sharing enquiries

CPSS data will be discoverable and requestable via the AD Workbench (September, 2025).

Samples will be discoverable through the EPND hub.

PI: Prof Middleton, MD, FRCP.

CPSS is sponsored by Janssen Pharmaceutical Research & Development LLC with additional support since 2021 from Merck, Takeda and Gates Ventures.