Symposium

Early Detection and Prevention of Cognitive Decline and Dementia: Findings from Major European Collaborative and Research Initiatives

Chair: Anja Leist[1], anja.leist@uni.lu

Speakers: Ritchie, Craig[2]; Solomon, Alina[3]; Muniz-Terrera, Graciela[2]; Russ, Tom[2]; Leist, Anja[1]

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With still no medical cure for dementia available, major research initiatives have been set up to investigate and target the development of dementia at earlier stages. Several ongoing projects focus on early detection of dementia with the hope to be able to administer personalized interventions for individuals at high risk. Ongoing clinical trials test different interventions on their potential to prevent or delay the onset of dementia. Complementing those efforts, large and long-spanning observational studies can be used to detect long-term precursors of cognitive aging. Indeed, there is increasing evidence for a large window of opportunity for intervention of several decades that could be used for preventative efforts in dementia. The symposium will bring together major European collaborative and research initiatives in the field of early detection and prevention of dementia. The first part of the symposium will present findings from clinical trials, the second part new findings coming from a range of observational studies. The first paper will report on the design and study cohorts of the European Prevention of Alzheimer's Dementia Consortium (EPAD) and the TriBEKa project. The second paper will focus on new multifactorial models to quantify prevention potential based on the FINGER trial. The third paper will report an integrated analysis of four longitudinal studies of ageing (OCT0, H70, LASA, and MAP) to evaluate the role of cognitively stimulating activities in the transitions from cognitively normal to slightly impaired, severely impaired, and death with multi-state models. The fourth paper will present the contribution of environmental factors over the life course, in particular air pollution, on cognitive change in the Lothian Birth Cohort of 1936. The last paper makes use of recent developments in approaching causal inference in observational studies and applies these to predict cognitive aging and dementia with data from the Survey of Health, Ageing and Retirement in Europe.

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