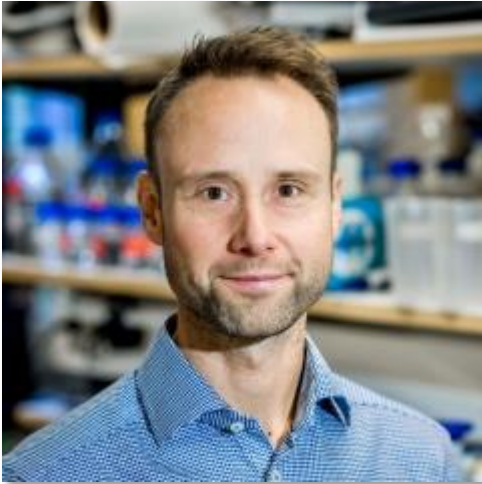


Breakthrough in Alzheimer's Diagnostic Journey - The Role of CSF & Plasma Biomarkers

Biography



Sebastian PALMQVIST is a senior consultant neurologist at the Memory Clinic of Skåne University Hospital in Malmö, and an associate professor and senior lecturer of neurology at Lund University in Sweden. For more than 15 years, Dr Palmqvist's research has been focused on cognitive assessments and biomarkers in Alzheimer's disease. He has published more than 140 articles including first/last

author publications in journals such as JAMA and Nature Medicine. He currently heads the BioFINDER-Primary Care study, which focuses on examining and implementing blood-based biomarkers and novel cognitive tests in primary care for improving the work-up of Alzheimer's disease and cognitive impairment. Dr Palmqvist is active as a clinician, researcher, teacher and supervisor as well as co-chair of the AAIC Scientific Program Committee and PI of the Strategic Research Area MultiPark at Lund University. Awards include the Inga Sandeborgs award (Swedish Medical Society), Her Majesty Queen Silvia's Award to a young Alzheimer researcher, the Swedish Alzheimer Association's Award for best publication (Palmqvist et al., JAMA 2020), AD/PD Junior Faculty Award, among others, and he was in 2022 and 2023 appointed "Highly cited researcher" by Clarivate (top 0.1% in number of citations among the world's researchers the last decade).

Abstract

The early and accurate diagnosis of Alzheimer's disease (AD) remains a formidable challenge in clinical practice, with significant implications for treatment and management strategies. Recent advancements in biomarker research have paved the way for more definitive diagnostic tools, notably through the analysis of cerebrospinal fluid (CSF) and the promising future application of blood-based biomarkers (BBMs). This presentation provides an overview of these biomarkers and their integration into clinical settings, offering a comprehensive update for neurologists, geriatricians, neuropsychologists, and internal medicine physicians.

The talk begins with an overview of CSF biomarkers that are pivotal in the AD diagnostic process. We will discuss the temporal evolution of these markers as AD progresses, focusing on the amyloid beta 42/40 ratio ($A\beta_{42/40}$), phosphorylated tau (P-tau), and neurofilament light chain (NfL). The presentation will elucidate how these markers are used in clinical practice.

Transitioning to blood-based biomarkers, we spotlight p-tau217, a promising marker that reflects tau pathology with high specificity for AD. The performance of p-tau217 in real-world clinical settings is critically evaluated, drawing on data from both secondary and primary care environments. This segment will address the practical aspects of implementing BBMs in routine clinical practice and how they compare to traditional CSF markers in terms of accessibility and patient comfort.

In conclusion, this talk aims to bridge the gap between research advancements and clinical application, providing attendees with the knowledge needed to navigate the evolving landscape of AD diagnostics.