## **High-Precision Immunoprecipitation Mass Spectrometry for Detecting Plasma Biomarkers in Alzheimer Disease**

Identification of patients with brain amyloidosis is important for disease classification and treatment in Alzheimer disease (AD)

Plasma Aβ42/Aβ40 ratio is a blood-based AD biomarker associated with brain amyloidosis



## **Study question**

What is the diagnostic accuracy of high-precision immunoprecipitation mass spectrometry (IPMS) in detecting brain amyloidosis in AD?

Plasma samples from AD cohorts





Sweden

AD status determination using IPMS

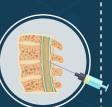


Plasma Aβ42 and Aβ40

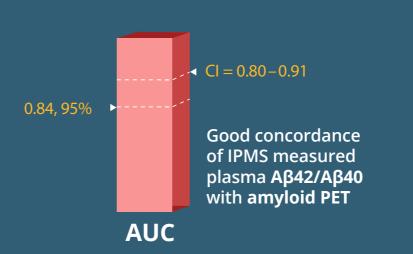


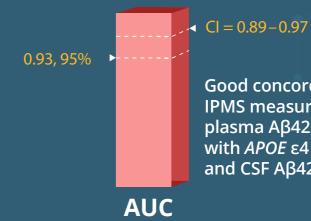
VS

Reference standards of amyloid PET



Reference standards of CSF Aβ42 and Aβ40





Good concordance of **IPMS** measured plasma Aβ42/Aβ40 with APOE ε4 status and CSF Aβ42/Aβ40

**IPMS** performance based on cognitive status



Plasma levels of Aβ42/Aβ40 obtained by the IPMS assay accurately diagnoses brain amyloidosis in AD