

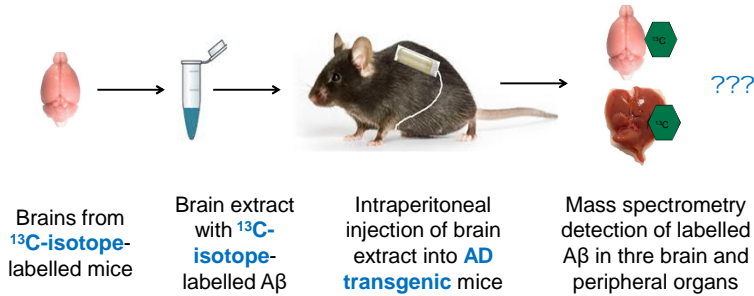


Tracking the routes of Amyloid beta penetration
in tissues - mass spectrometry approaches

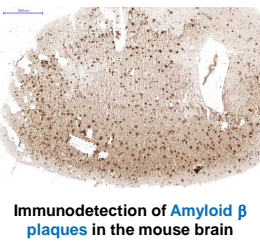
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Can Amyloid β reach the brain from the periphery like a prion?



Question and outline

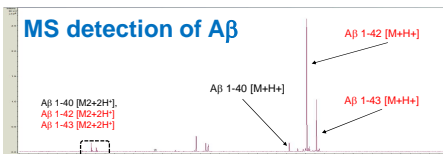


Immunodetection of Amyloid β plaques in the mouse brain

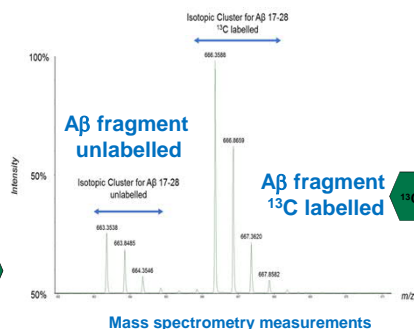
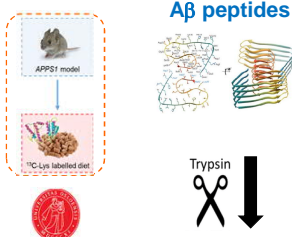
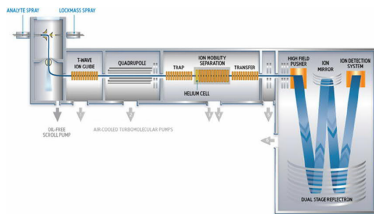
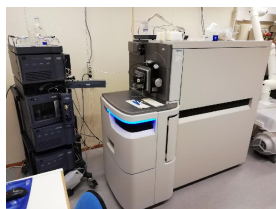


MALDI mass spectrometry measurements

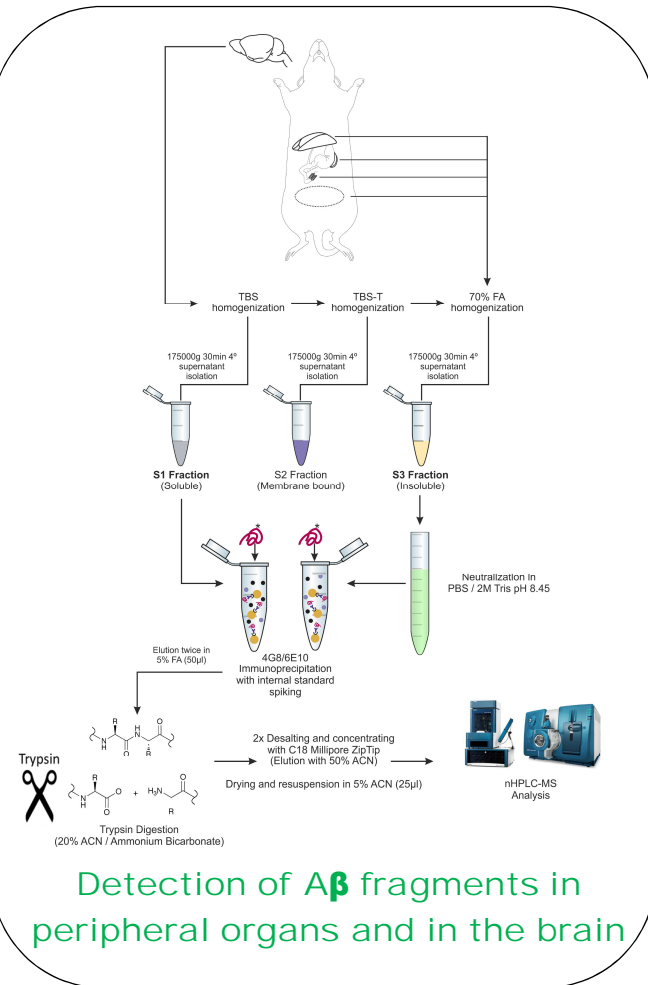
- **Transgenic mouse model** resembling the progression of **Alzheimer's disease (AD)**
- **Amyloid β peptides** extraction from the brain
- **Mass spectrometry (MS) measurements**
- Different length $A\beta$ 1-40, $A\beta$ 1-42, $A\beta$ 1-43 peptides



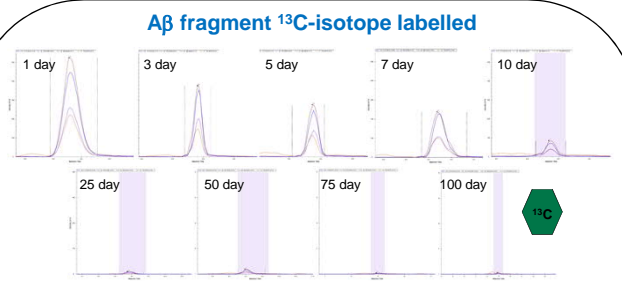
Mouse AD model characterization



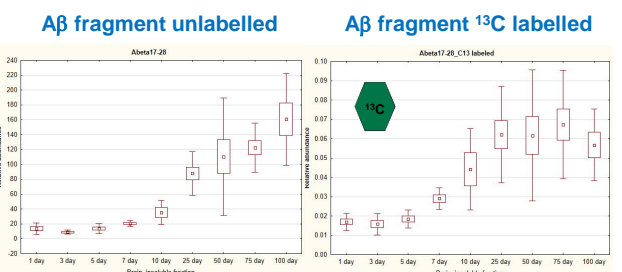
Mouse AD isotopic labelling detection



Detection of $A\beta$ fragments in peripheral organs and in the brain



Liver



Brain