

## **Visualizing amyloid and huntingtin in post-mortem brain slices obtained from Alzheimer´s disease and Huntington´s disease patients with novel molecular imaging biomarkers and biomarker candidates**

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### Research question and background

Highly specific and sensitive biomarkers for pathologies related to Huntington´s disease (HD) and Alzheimer´s disease (AD) dysfunctions in the brain are of great value to assess therapeutic efficacy not only clinically to establish an early diagnosis and to monitor the efficacy of therapeutic interventions and decelerated neurodegeneration. In the present study we would like to evaluate novel molecular imaging biomarkers specifically developed for the visualization of misfolded protein deposits such as mutant huntingtin and amyloid, to compare their binding properties in postmortem autoradiographic studies and to assess the mutant huntingtin-binding or amyloid-binding in correlation to other radioligands related to HD or AD.

### Methods and tissues used

Snap-frozen and paraffin-embedded post-mortem cortical tissue blocks from patients diagnosed with HD or AD and age-matched non-demented controls were obtained from the Netherlands Brain Bank (NBB). The post-mortem tissues were sectioned using a cryostat. Immunohistochemistry is used to analyze the presence and localization of molecular targets in the tissue. In vitro binding using autoradiography is assessed to evaluate and characterize the potential biomarkers.

### Results and conclusions

At present, there are no results to report.