Supplementary Online Content


eMethods.
eFigure 1. Correlation of neuropathological rating with [18F]flortaucipir retention
eFigure 2. Correlation of AT8 immunohistochemistry with [18F]flortaucipir SUVR in larger-sized ROIs

This supplementary material has been provided by the authors to give readers additional information about their work.
eMethods.

As a third method of assessing the intensity of the total AT8-labelled tau pathology three independent neuroscientists rated images acquired from representative regions of cerebral cortex and putamen according to a visual analogue scale from zero (no pathology) to ten (the most intense pathology) based on the intensity of the tau immunohistochemistry, blinded to the region and to SUVR PET-results. A mean value of these ratings was used to correlate the rating to PET SUVR retention (eFigure 1). Interrater reliability was determined using square weighted Cohen’s Kappa (R 3.4.4, package irr) and was found to be acceptable (Cohen’s kappa 0.97-0.99).
eFigure 1. Correlation of neuropathological rating with $[^{18}\text{F}]$flortaucipir retention

Tau SUVR vs Neuropathological grade

$r = 0.85; p < 0.001$
eFigure 2. Correlation of AT8 immunohistochemistry with $^{[18\text{F}]}$flortaucipir SUVR in larger-sized ROIs

- A: AT8+ neurites vs SUVR in large ROIs
- B: AT8+ % area vs SUVR in large ROIs
- C: SUVR large vs small ROIs

**eFigure 2** Correlations of AT8 immunohistochemistry to $^{18\text{F}}$Flortaucipir SUVR in larger sized ROIs. The smaller sized ROIs used in the main manuscript were expanded to form larger sized ROIs (1.5 - 4 cm$^3$). These larger ROIs were correlated to A) AT8 positive neurite density, B) AT8 positive % of the total area, and C) the Flortaucipir SUVRs in the small original ROIs.