

Supplementary Figures

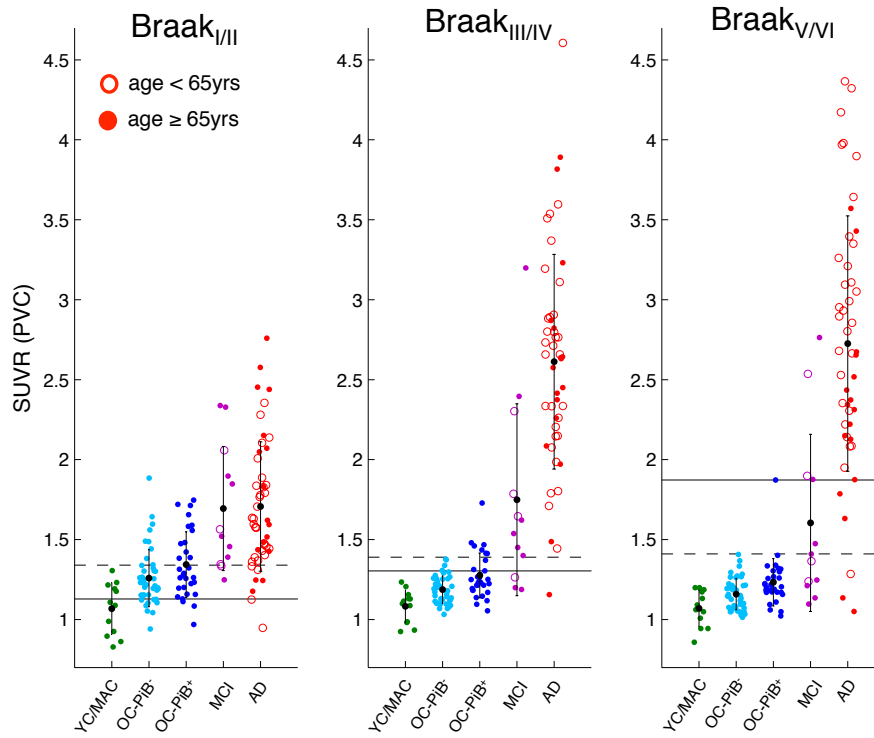


Figure S1. Braak ROI-based AV-1451 staging for early- vs. late-onset ADs

Tau tracer uptake (mean SUVR, PVC, individual space) for each Braak composite region of interest (ROI) by group shown for BACS controls and UCSF patients, separately for early ($n=31$) and late ($n=17$) onset of the disease. Mann-Whitney U tests showed that late-onset patients had significantly higher tau tracer uptake in Braak_{I/II} ($p=.002$) than early-onset patients. Black dots display mean values, error bars denote SD. Braak thresholds are shown as solid lines.

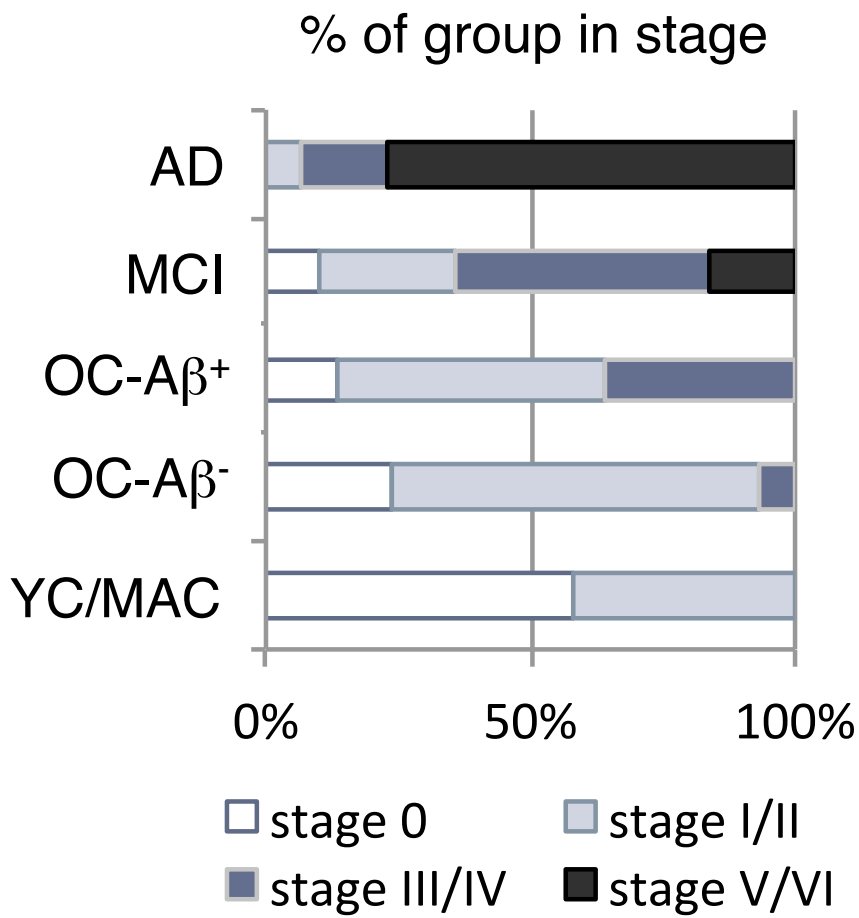


Figure S2. Percentage of group assigned to a specific Braak ROI- based stage

Across both samples we determined the proportion of subjects within a specific diagnostic group assigned to each stage (based on PV-corrected SUVRs).

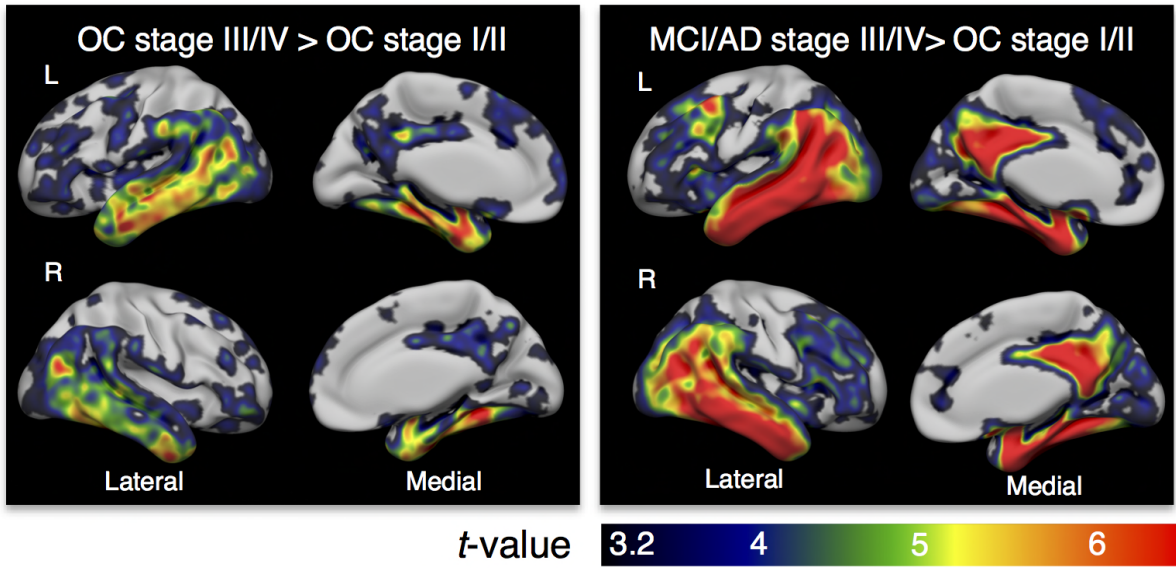


Figure S3. Tracer uptake patterns for stage III/IV control participants and patients.

Voxel-wise 2-sample t -tests between old controls (OC; left) or MCI/AD patients (right) assigned to stage III/IV vs. OC stage I/II. $p_{\text{voxel}} < .001$, $p_{\text{cluster}} < .05$ (cluster-based FWE corrected).

Supplementary Files

File 1. Cortical mask (in MNI space) excluding basal ganglia and thalamus

We used the Freesurfer MNI template `aparc+aseg` to create a cortical mask that includes all Braak ROIs but excludes thalamus and basal ganglia. The mask has integer values between 1-3 corresponding to 1: Braak_{I/II}, 2: Braak_{III/IV} and 3: Braak_{V/VI} ROIs. We used all voxels > 0 (i.e. all Braak ROIs) to derive a t -sum score as well as the percentage of supra-threshold voxels.

File 2. AD-vulnerable mask (in MNI space)

We performed voxel-wise 2-sample t -tests between AD/MCI patients (all $A\beta^+$) vs. $A\beta^-$ old controls in both samples (BACS/UCSF and ADNI) and used the overlap of significant voxels to create an AD-signature mask ($p_{cluster} < .05$, $p_{voxel} < .001 \sim T > 3.2$).