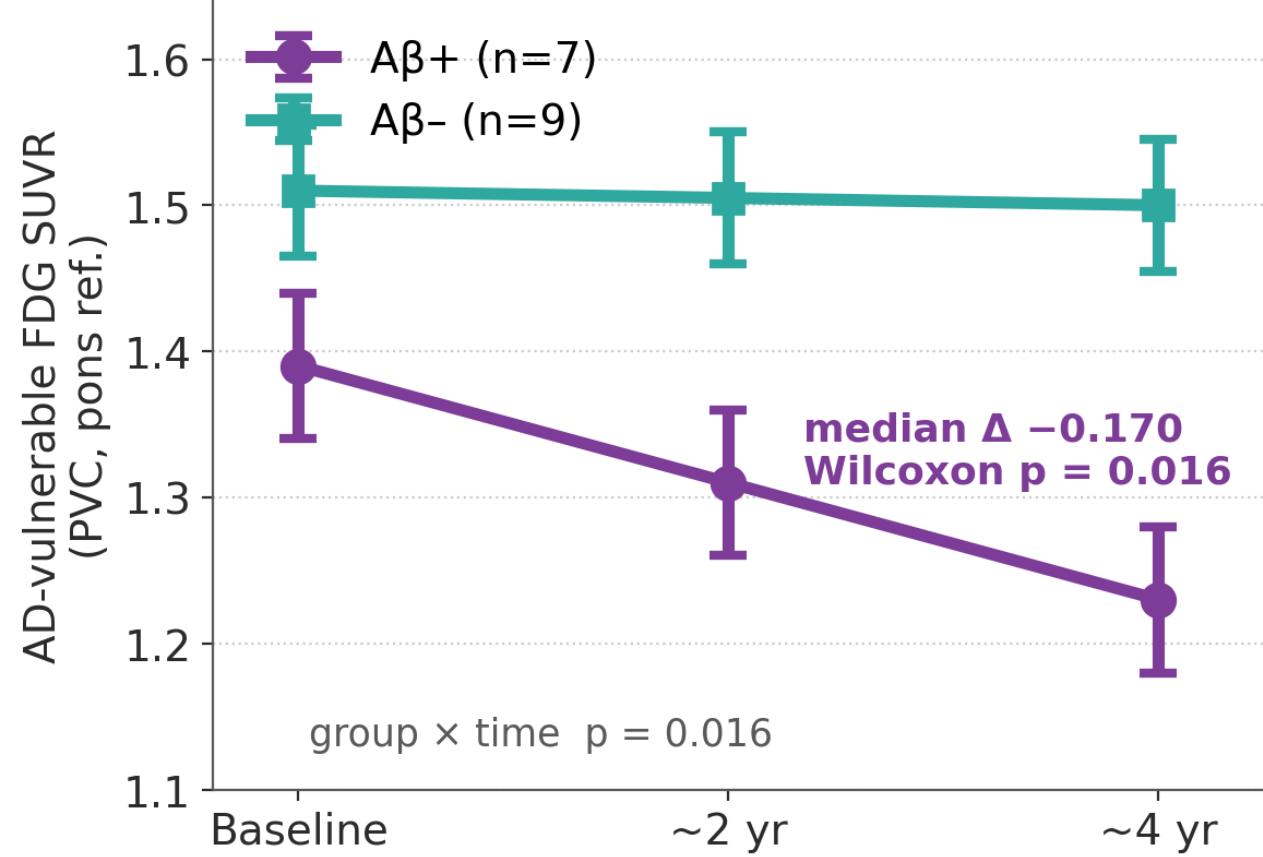
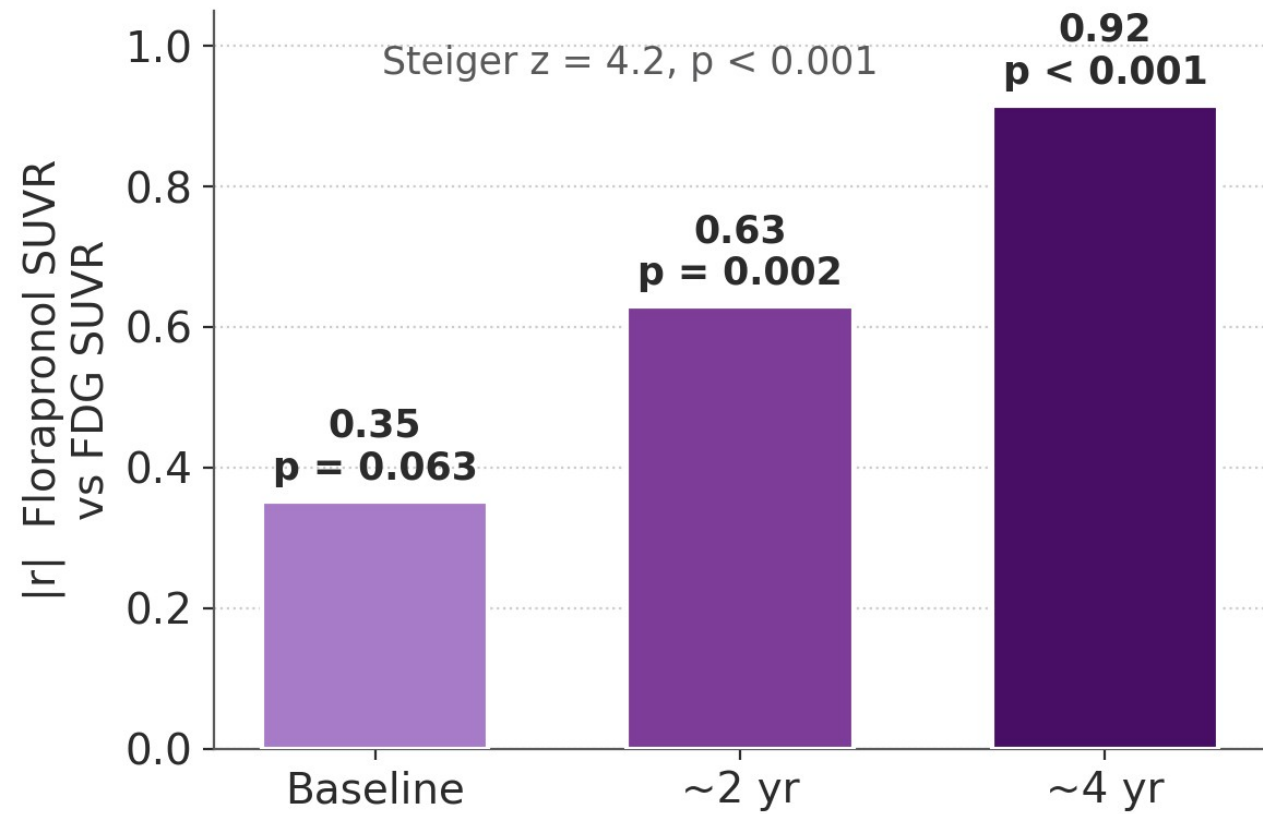
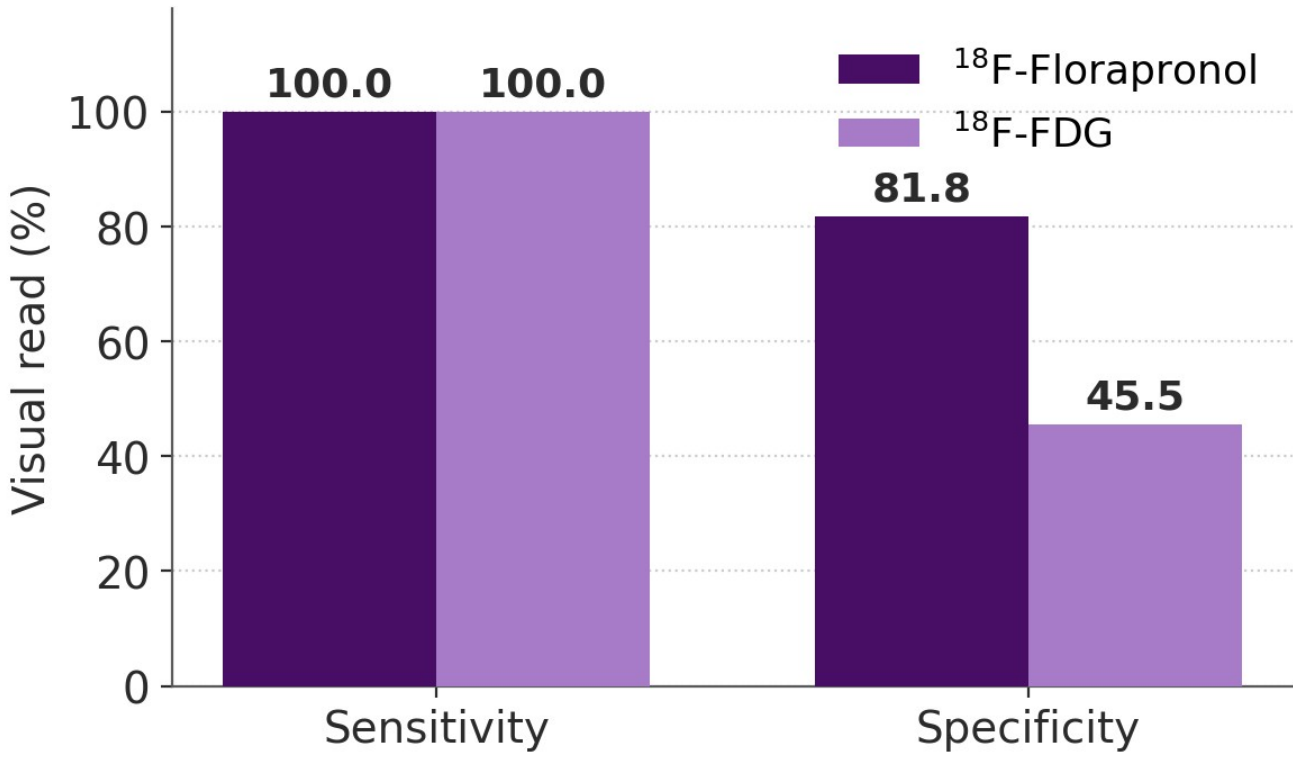


Baseline ¹⁸F-Florapronol (Alzaview) Amyloid Positron Emission Tomography Predicts Dementia Progression in Mild Cognitive Impairment

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In A+N+–enriched amnestic MCI, baseline ¹⁸F-Florapronol amyloid burden tracked 4-year FDG metabolic decline (age-adjusted partial $r = -0.909$) and showed higher etiologic specificity for AD conversion than FDG visual reads (81.8% vs 45.5%).

INTRODUCTION	METHODS	RESULTS	CONCLUSIONS	REFERENCES
- The 2024 Alzheimer's Association criteria define AD biologically, placing amyloid PET as a Core 1 biomarker for diagnosis and staging. ¹⁸F-Florapronol (Alzavue®) is a Korean second-generation amyloid tracer; PVC-corrected SUVR via the SCALE PET deep-learning pipeline improves diagnostic specificity. - Amyloid-positive MCI with concurrent FDG hypometabolism (A+N+) carries high near-term conversion risk. Objective: Does baseline ¹⁸F-Florapronol amyloid burden predict 4-year ¹⁸F-FDG metabolic neurodegeneration in amnestic MCI?	Design: 4-year prospective, exploratory, single-center memory-clinic study (amnestic MCI; Petersen criteria; CDR 0.5). Cohort: 29 enrolled → 16 completed 4 years (Aβ+ n=7; Aβ– n=9). Imaging: baseline ¹⁸F-Florapronol PET + serial ¹⁸F-FDG PET (baseline / ~2 yr / ~4 yr), MRI, and K-MMSE. Quantification: MRI-guided SCALE PET with PVC. Amyloid = 6-region composite (cerebellar reference); FDG = 5-region AD-vulnerable composite (pons reference). Read-out: amyloid status by blinded visual read; AD conversion adjudicated by blinded neurologists (NIA-AA). Statistics: correlation, age- and baseline-FDG-adjusted partial correlations, and linear mixed-effects (group × time). All analyses exploratory.	- Aβ+ were older (75.4 vs 64.9 yr); 11/12 showed an A+N+ profile. - Over 4 yr, Aβ+ FDG SUVR declined (median −0.170; $p=0.016$) and K-MMSE fell (−5.0 pts; $p=0.031$); Aβ– stayed stable. - Amyloid–FDG link strengthened: age-adjusted partial $r=-0.909$ ($p<0.001$); all 5 AD converters were Aβ+.  Fig 1. Serial FDG-PET, 16 four-year completers.  Fig 2. Amyloid–FDG association strengthens over 4 yr.	- Baseline ¹⁸F-Florapronol amyloid burden was associated with 4-year FDG metabolic decline, independent of pre-existing hypometabolism. - Amyloid visual read showed higher etiologic specificity for AD conversion than FDG (81.8% vs 45.5%; AUC 0.927). ¹⁸F-Florapronol PET is a candidate research biomarker for prognostic stratification — not yet a clinical prediction rule.  Fig 3. Etiologic specificity for AD conversion (visual read).	- Jack CR Jr, et al. Revised criteria for AD. <i>Alzheimers Dement.</i> 2024;20:5143–5169. - Park SY, et al. Cutoff SUVR of [¹⁸F]florapronol PET (PVC). <i>Nucl Med Mol Imaging.</i> 2025;59:229–238. - Lee MR, et al. Predictors of AD conversion in MCI using ¹⁸F-Florapronol over 2 yr. <i>J Clin Med.</i> 2024;13:2970. - Iaccarino L, et al. Predicting clinical stability in amyloid-positive subjects by FDG-PET. <i>Ann Clin Transl Neurol.</i> 2019;6:1528–1539. - Rabinovici GD, et al. Updated appropriate use criteria for amyloid and tau PET. <i>J Nucl Med.</i> 2025. - Landau SM, et al. FDG-PET measures of decline in AD and MCI. <i>Neurobiol Aging.</i> 2011;32:1207–1218. - Klunk WE, et al. The Centiloid Project. <i>Alzheimers Dement.</i> 2015;11:1–15.
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