Supplemental material

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*J Neurol Neurosurg Psychiatry*

**Plasma biomarkers for Alzheimer's disease: a field-test in a memory clinic**

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**CONTENT**

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**Table S1**. Demographic and clinical features of each subsample of participants with biomarkers assessed through plasma and at least one traditional exam (i.e. PET, CSF, MRI, or FDG-PET).

| Demographic and clinical features | Traditional exams | | | | |
|---|---|---|---|---|---|
| | Amyloid-PET n=142 | Tau-PET n=105 | MRI n=168 | FDG-PET n=64 | CSF n=51 |
| Age, years | 72 (9) | 73 (9) | 71 (12) | 72 (9) | 70 (10) |
| Gender, males | 51% (72) | 47% (49) | 50% (84) | 48% (31) | 47% (24) |
| Education, years | 14 (5) | 14 (5) | 15 (6) | 14 (6) | 15 (6) |
| MMSE | 27 (4) [7] | 27 (4) [8] | 27 (4) [16] | 25 (3) [3] | 27 (4) [5] |
| CDR | 0.5 (0.5) [19] | 0.5 (0.1) [9] | 0.5 (0.5) [39] | 0.5 (0.0) [7] | 0.5 (0.1) [11] |
| Cognitive stage | | | | | |
| CU | 27% (39) | 26% (27) | 42% (71) | 9% (6) | 20% (10) |
| MCI | 62% (88) | 63% (66) | 50% (84) | 73% (47) | 67% (34) |
| Dementia | 11% (15) | 11% (12) | 8% (13) | 17% (11) | 14% (7) |

PET: Positron Emission Tomography. CSF: cerebrospinal fluid. MRI: magnetic resonance imaging. FDG: 18F-fluorodeoxyglucose. MMSE: Mini-Mental Stata Examination. CDR: Clinical Dementia Rating. CU: cognitively unimpaired. MCI: mild cognitive impairment.

**Figure S1**. Correlations between plasma and traditional amyloid biomarkers (i.e. amyloid-PET and CSF Aβ$_{42}$).



One plasma p-tau$_{181}$/Aβ$_{42}$ value (24.0) was not displayed to improve data visualization (but was included in the analyses). Pearson's *r* and its confidence intervals are reported for each correlation.

**Figure S2**. Correlations between plasma and traditional tau biomarkers (i.e. tau-PET and CSF p-tau$_{181}$).
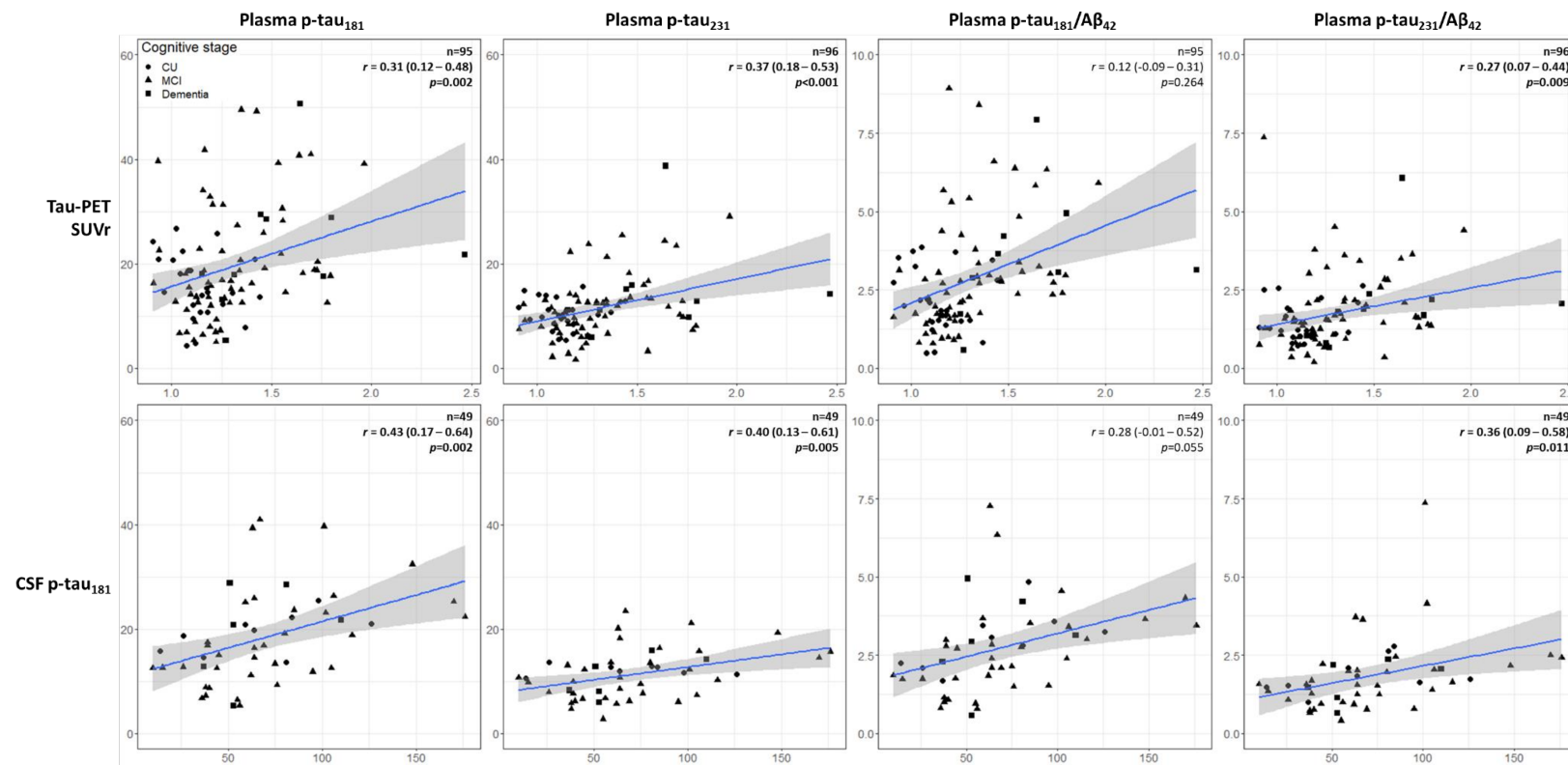


SUVr: standardized uptake value ratio.

One plasma p-tau$_{181}$/A$\beta_{42}$ value (24.0) was not displayed to improve data visualization (but was included in the analyses). Pearson's *r* and its confidence intervals are reported for each correlation.

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**Figure S3**. Correlations between plasma and traditional neurodegeneration biomarkers (i.e. hippocampal volume, and FDG-PET).
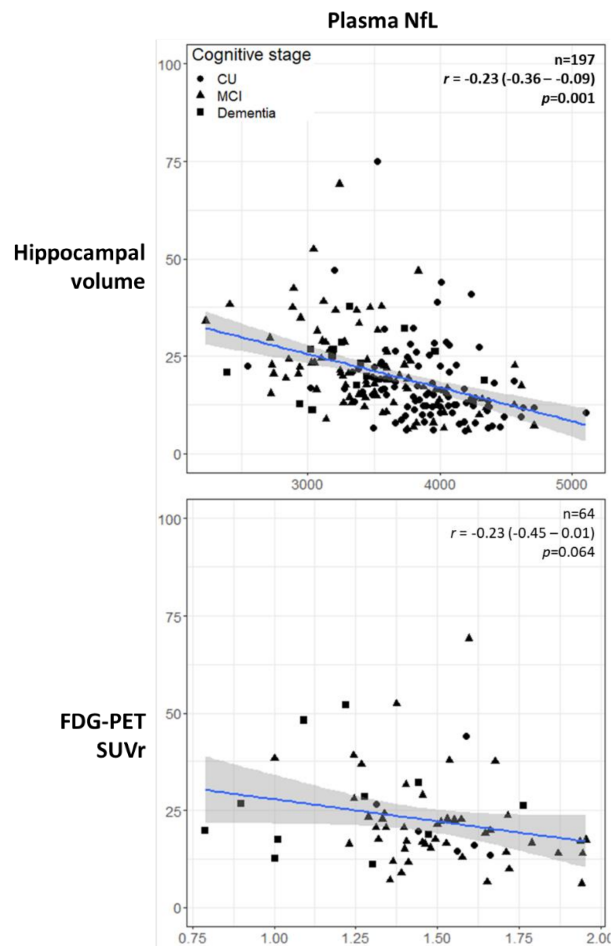


Two plasma NfL values (188.1 pg/ml and 260.1 pg/ml) were not displayed to improve data visualization (but were included in the analyses). Pearson's *r* and its confidence intervals are reported for each correlation.
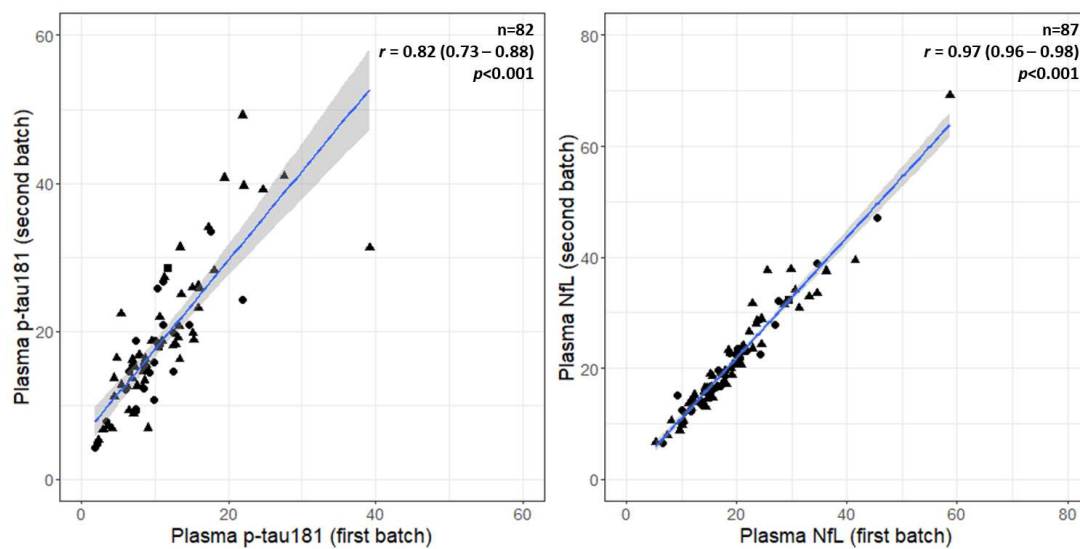
**Figure S4**. Diagnostic accuracy of plasma biomarkers over homologous traditional biomarkers.
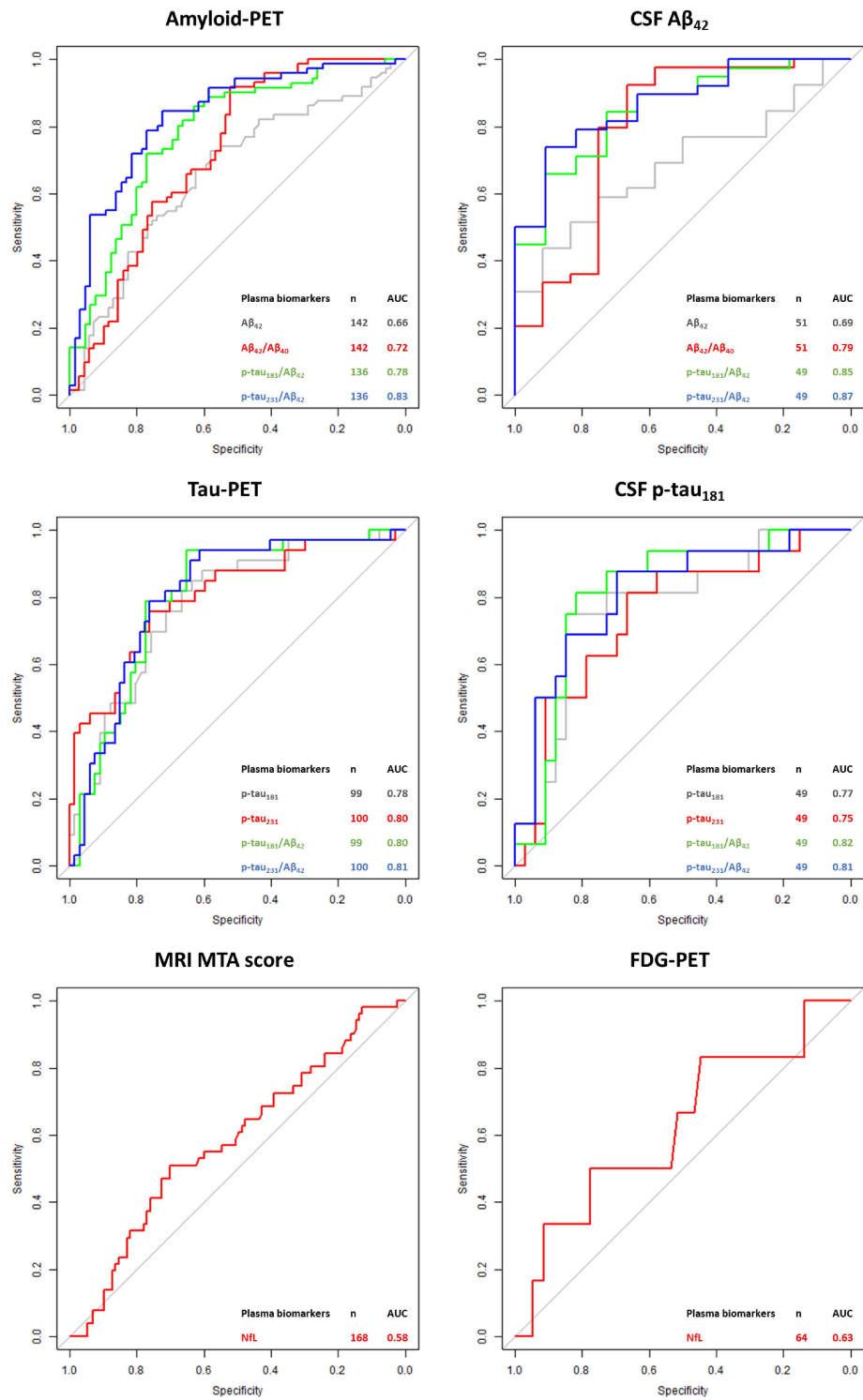
Amyloid-PET positivity: visual reading. CSF $A\beta_{42}$ positivity: < 880.5 pg/ml.

Tau-PET positivity: Braak stages IV-VI. CSF p-tau$_{181}$ positivity: > 80.5 pg/ml.

MTA positivity: age-based cut-off. FDG-PET positivity: SUVr <1.21.

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**Figure S5**. Test-retest variability of plasma p-tau$_{181}$ and plasma NfL.



Pearson's r and its confidence intervals are reported for each correlation.