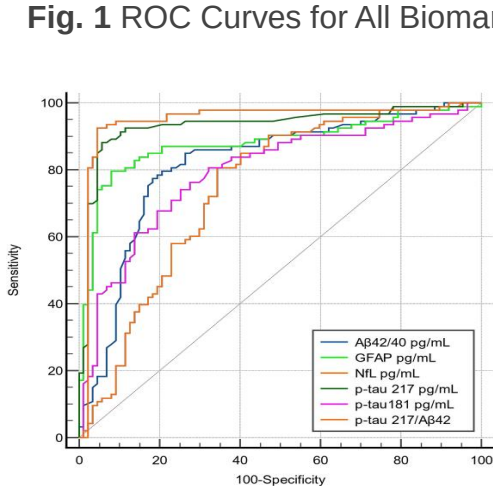
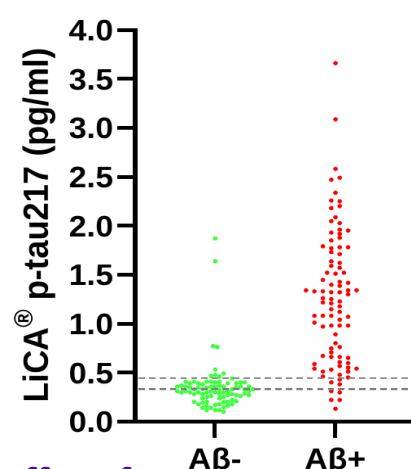


Stability Performance of LiCA-Based Blood Biomarkers for Amyloid-β Positivity in the Expanded C-PAS Cohort

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LiCA-based blood biomarkers demonstrate consistent diagnostic performance in the expanded C-PAS cohort. The p-tau217/Aβ42 ratio exhibits optimal accuracy (AUC=0.947), and the refined dual cut-off minimizes uncertain cases, supporting efficient Aβ positivity prediction with reduced reliance on PET-CT.

BACKGROUND	METHODS	RESULTS	CONCLUSIONS	CONTACT																														
Alzheimer's disease (AD) is the leading cause of dementia, driven by amyloid-β (Aβ) plaque accumulation. Early detection of Aβ positivity is critical for timely intervention. Blood Biomarkers for AD Blood-based markers provide a minimally invasive alternative to CSF and PET: • p-tau217: Phospho-tau • GFAP: Astrocyte activation • NfL: Neurodegeneration • Aβ42/40: Amyloid ratio Prior C-PAS Study Our study (N=1,254) validated LiCA biomarkers. p-tau217 was top performer (AUC=0.941). Dual cut-off showed clinical utility. Study Objective Confirm stability in 180 additional participants and refine p-tau217 dual cut-off.	Study Design Prospective validation. [18F]florbetapir PET-CT as reference. Participants (N=180) Aβ- (N=87), Aβ+ (N=93). 95% CI. LiCA Assays Six biomarkers: Aβ42/40, p-tau181, p-tau217, GFAP, NfL, p-tau217/Aβ42. Analysis AUC (95% CI); dual cut-off: ≤0.37, >0.47 pg/mL	Fig. 1 ROC Curves for All Biomarkers  <table><caption>AUC Comparison</caption><tr><th>Biomarker</th><th>AUC</th></tr><tr><td>p-tau217/Aβ42</td><td>0.947</td></tr><tr><td>p-tau217</td><td>0.933</td></tr><tr><td>GFAP</td><td>0.880</td></tr><tr><td>Aβ42/40</td><td>0.817</td></tr><tr><td>p-tau181</td><td>0.793</td></tr><tr><td>NfL</td><td>0.745</td></tr></table> Fig. 2 LiCA p-tau217 by Aβ Status  <table><caption>Dual Cut-off Performance</caption><tr><th>Category</th><th>Aβ-</th><th>Aβ+</th><th>All</th></tr><tr><td>Negative</td><td>74%</td><td>5%</td><td>38%</td></tr><tr><td>Intermediate</td><td>18%</td><td>5%</td><td>12%</td></tr><tr><td>Positive</td><td>8%</td><td>90%</td><td>50%</td></tr></table>	Biomarker	AUC	p-tau217/Aβ42	0.947	p-tau217	0.933	GFAP	0.880	Aβ42/40	0.817	p-tau181	0.793	NfL	0.745	Category	Aβ-	Aβ+	All	Negative	74%	5%	38%	Intermediate	18%	5%	12%	Positive	8%	90%	50%	• LiCA biomarkers demonstrate consistent diagnostic performance in the expanded C-PAS cohort, confirming external validity of prior findings. • The p-tau217/Aβ42 ratio achieves optimal accuracy (AUC=0.947), outperforming standalone p-tau217 (AUC=0.933). • The refined dual cut-off reduces the gray zone from 16% to 12% (sensitivity=0.92, specificity=0.93). • These findings support the clinical use of LiCA assays for early AD screening with reduced PET-CT reliance.	Name: Ying Wang Institution: Shanghai Sixth People's Hospital City: Shanghai, China
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