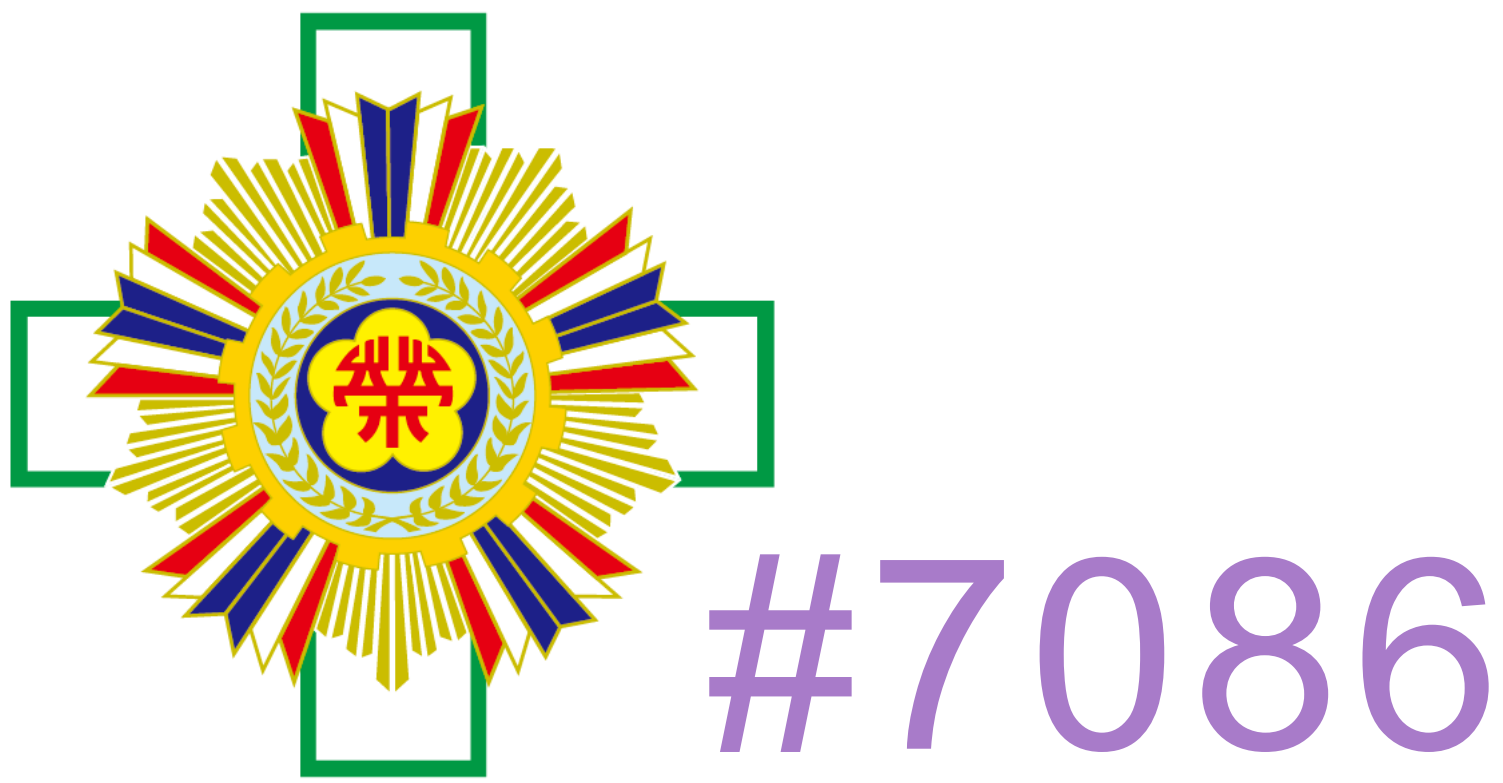


Diagnostic Performance of the Fully Automated Roche Elecsys Plasma p-tau217 Assay for Amyloid Pathology in a Taiwanese Memory Clinic Cohort



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- Roche plasma p-tau217 showed high accuracy for A β positivity.
- Roche and Simoa p-tau217 AUCs did not differ significantly.
- A dual-cutoff framework classified 88.1% into definitive zones.
- Lower eGFR increased p-tau217 but did not impair classification.
- Findings support scalable plasma p-tau217 triage in East Asian memory clinics.

INTRODUCTION	METHODS	RESULTS	CONCLUSIONS	REFERENCES
Automated plasma p-tau217 assays may enable scalable identification of Alzheimer’s disease (AD) amyloid pathology, but validation in East Asian cohorts and clinical implementation strategies remain limited.	We evaluated plasma Roche p-tau217 in 139 participants from a Taiwanese memory clinic using amyloid PET or CSF biomarkers as reference standards. Diagnostic performance, dual-cutoff classification, biomarker comparisons, and renal function effects were assessed using ROC analyses and subgroup comparisons.	Plasma Roche p-tau217 showed high accuracy for A β positivity (AUC 0.973). In the subgroup with complete biomarker profile, its AUC did not differ significantly from Simoa p-tau217 and exceeded those of p-tau181 and NfL. A dual-cutoff framework classified 88.1% of participants into definitive zones. Lower eGFR was associated with higher p-tau217 concentrations but did not affect classification performance.	Plasma Roche p-tau217 showed high diagnostic performance for identifying brain A β pathology in this Taiwanese memory clinic cohort. The cohort-derived dual-cutoff framework supports its potential role as a scalable triage biomarker, although external validation is needed, particularly in independent cohorts, earlier-stage clinical populations, and individuals advanced renal impairment.	Hibar DP, Bauer A, Rabe C, et al. Elecsys pTau217 plasma immunoassay detection of amyloid pathology in clinical cohorts. <i>Alzheimers Dement</i> . 2026;22(1):e71009. Leuzy A, Bollack A, Pellegrino D, et al. Considerations in the clinical use of amyloid PET and CSF biomarkers for Alzheimer’s disease. <i>Alzheimers Dement J Alzheimers Assoc</i> . 2025;21(3):e14528.

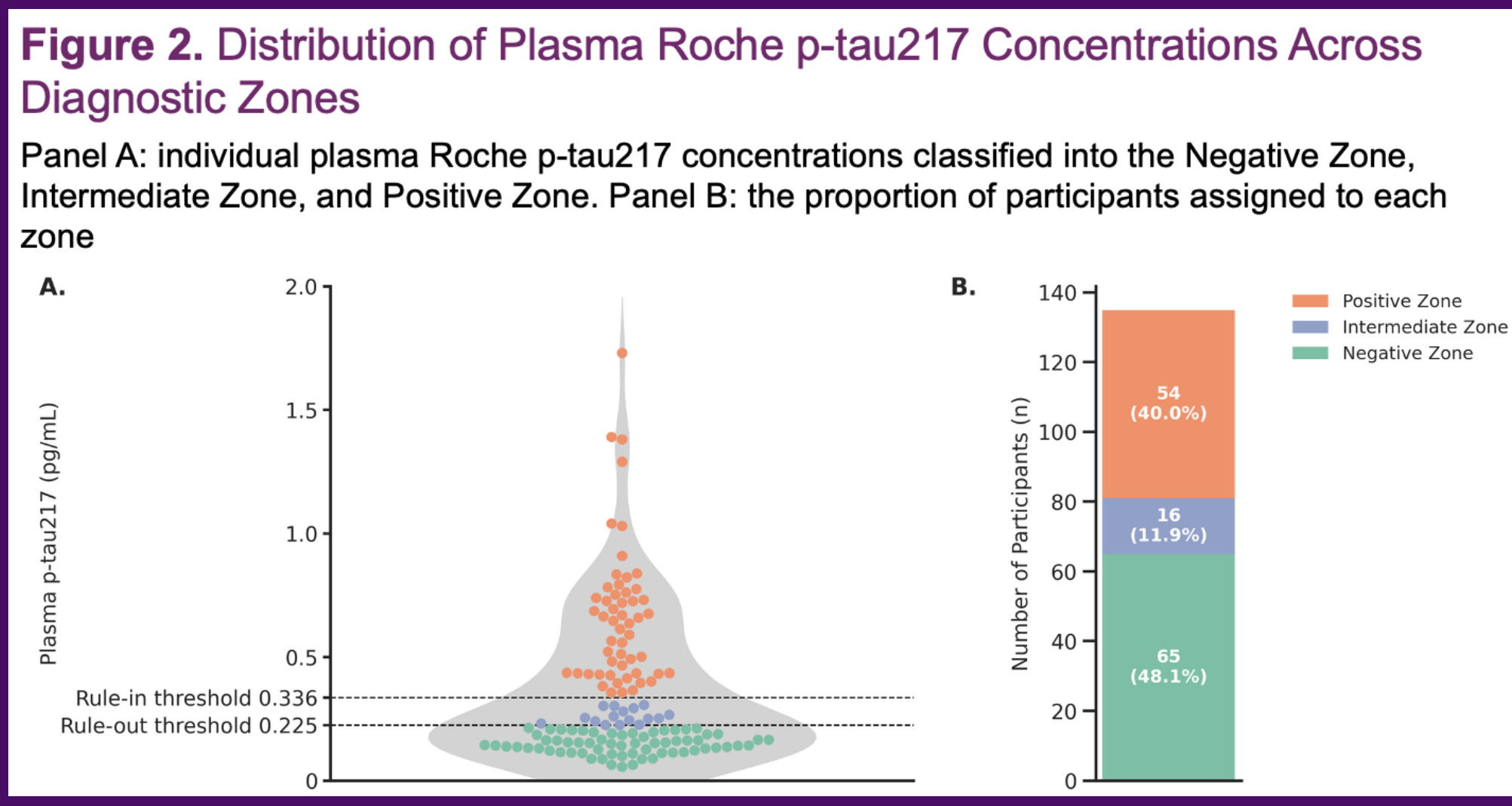
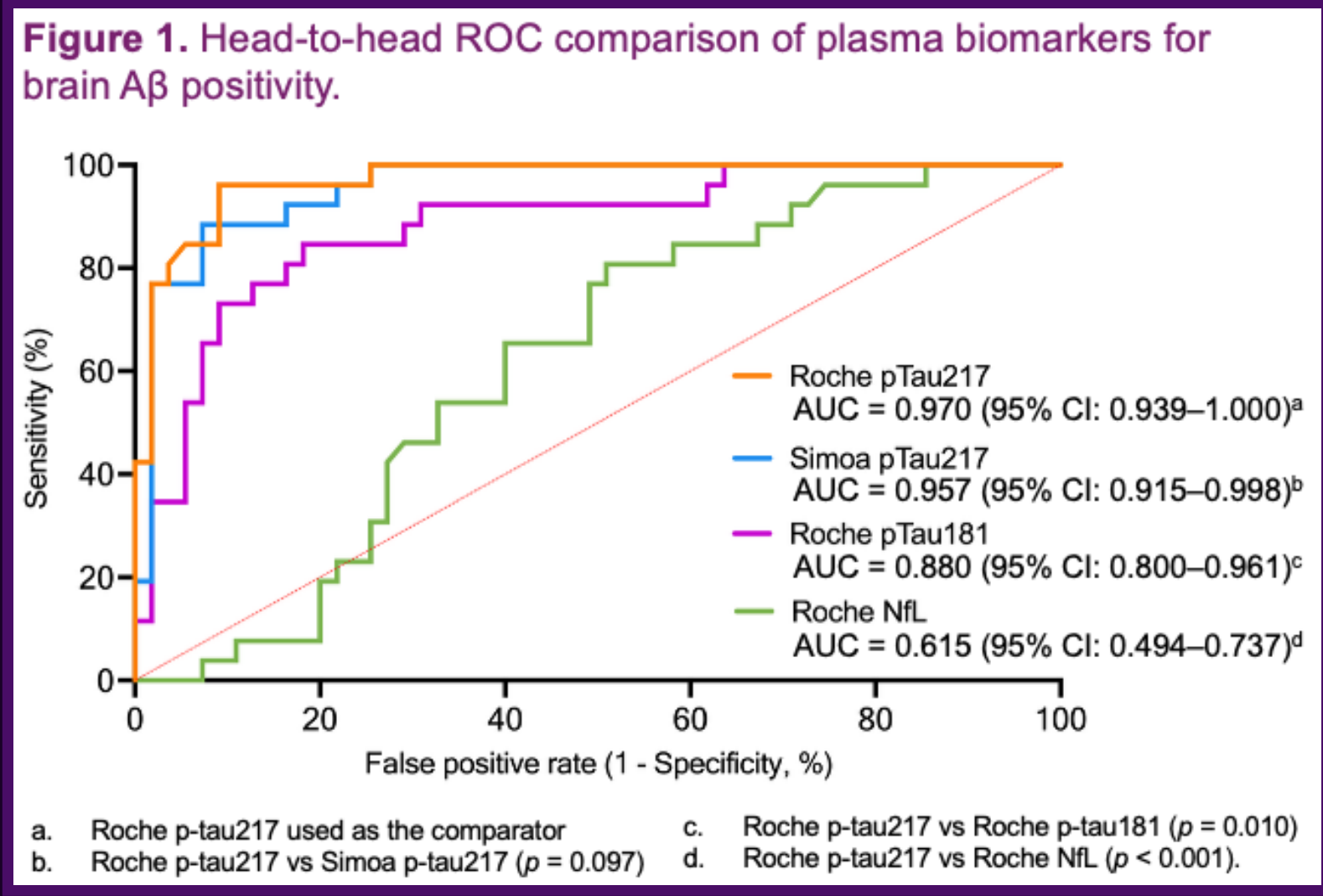


Table 1. Logistic Regression Models Predicting Brain Amyloid Positivity

Predictors	Model 1: Total cohort, unadjusted OR (95% CI)	Model 1b: Complete cases, unadjusted OR (95% CI)	Model 2: Complete cases, adjusted OR (95% CI)
Roche p-tau217, per 1-SD increase in ln-transformed concentration	26.71 (9.67–73.75) ***	33.26 (9.63–114.94) ***	30.34 (7.85–117.23) ***
Age (years)	—	—	1.01 (0.90–1.12)
Sex (Female)	—	—	0.48 (0.09–2.57)
eGFR (mL/min/1.73m ²)	—	—	1.05 (0.99–1.11)
BMI (kg/m ²)	—	—	0.93 (0.68–1.27)
APOE ϵ 4 carrier status	—	—	5.18 (0.93–28.86)

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