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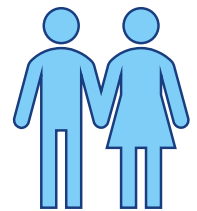
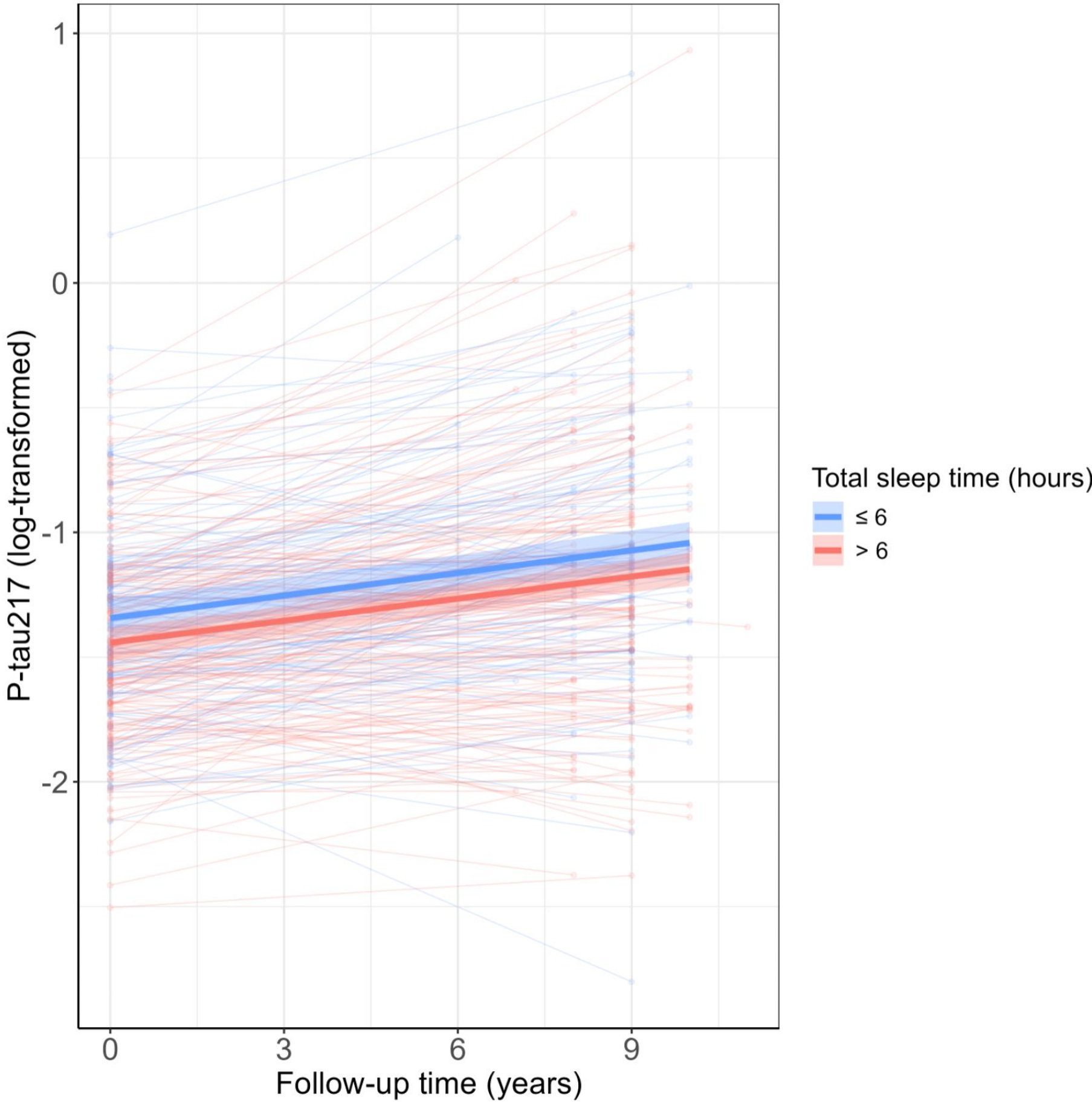
Wednesday-1216

Objective Sleep and Alzheimer’s Disease
Plasma Biomarker Trajectories in the
Population-based Rotterdam Study

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Lower total sleep time was cross-sectionally associated with higher plasma p-tau217, but not with its longitudinal trajectory or with GFAP/NfL, suggesting a specific link between short sleep and early Alzheimer’s disease (AD) pathology rather than neurodegeneration broadly.

INTRODUCTION	METHODS	RESULTS & CONCLUSIONS		
Previous studies have linked poorer sleep health to AD pathology, yet prospective evidence on whether objectively measured sleep predicts longitudinal changes in plasma biomarkers of AD remains limited. To address this gap, we investigated the association between baseline accelerometry-derived sleep characteristics and AD plasma levels (p-tau217, GFAP, and NfL) measured at baseline and follow-up.	 319 non-demented participants from the Rotterdam Study (mean age 62.4 (5.3); 47% female).  Accelerometers were used to assess nighttime sleep characteristics - including total sleep time, sleep efficiency, and wake after sleep onset at baseline.  Simoa plasma p-tau217, GFAP, and NfL were measured at baseline and after an average of nine years of follow-up.	P-tau217  Figure 1. P-tau217 trajectories over time for low versus high total sleep time (median split) Only lower total sleep time was associated with higher baseline p-tau217 ($\beta=-0.14$ [-0.24,-0.04], $p=0.013$), but not with its change over time, indicating a link between sleep and early AD pathology.	GFAP and NfL No associations were found between sleep characteristics and baseline levels or longitudinal trajectories of GFAP or NfL ($p>0.05$). This suggests sleep may relate more specifically to AD pathology than to neurodegeneration. APOE4 moderation effect APOE4 carriership did not moderate the associations between sleep characteristics and AD plasma biomarkers.	The absence of longitudinal associations underscores the need for repeated sleep measurements to clarify AD-related temporal dynamics. CONTACT  SCAN ME  ALZHEIMER'S ASSOCIATION AAIC >26 