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Theta Reset in Human Subjects During Working Memory Performance

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Presenter and Advisor Information

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Poster Presentation P29

**THETA RESET IN HUMAN SUBJECTS DURING WORKING MEMORY
PERFORMANCE**

Jon Meade, Amy Rohalla, Chris Berg, Stephanie M. Brewer, Melissa Richard, Jason
Somogyi, Nikhil Vajaria and Joseph Williams*

The theta wave has been implicated in memory formation and retrieval in rats. More specifically, a phase shift of the theta wave at stimulus onset (theta reset) has been linked to memory performance. The present study examines the role of theta reset in human subjects during working memory performance. EEG data was recorded during a working memory task that asked participants to view an array of dots and later recall the pattern. Preliminary data indicates that significant frontal midline reset occurred during the encoding phase of the task and was a predictor of better task performance. Preliminary data from non-midline theta indicates significant theta reset also occurred and was also predictive of greater task performance.