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To the Science Editor,  
*Journal of Visual Experiments*

Dear Dr. Myers,

Please consider for publication the enclosed manuscript entitled “Turning off the executive: Disruption of frontal lobe neural synchrony by alcohol intoxication” by Marinkovic, Beaton, Rosen, Happer, and Wagner.

Our study combined MEG source modeling and structural MRI in response to Stroop interference to examine the cortical areas involved in cognitive control, to characterize the temporal sequence of their activation, and to quantify the oscillatory dynamics of their neural interactions in real time. Because MEG signal reflects synaptic currents directly, it has excellent temporal resolution and can resolve successive spatio-temporal stages of processing with high precision. For the same reason, it is suitable for pharmacological manipulations unlike fMRI, which is susceptible to vascular confounds. In the present study, young, healthy individuals were given a moderate alcohol dose in a within-subject design. The results indicate that acute intoxication attenuated theta power to Stroop conflict and dysregulated co-oscillations between the medial and lateral prefrontal areas known to be the hubs of cognitive control. This method can provide insight into real-time interactions during cognitive processing and can be used across a variety of tasks and manipulations.

Please note that the study was conducted in accord with APA standards for ethical treatment of subjects and was approved by the institutional review board.

All co-authors have approved the submitted manuscript.

There were no conflicts of interest regarding the research reported in this manuscript.

On behalf of all co-authors, I thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read 'K. Marinković', written in a cursive style.

Ksenija Marinković, Ph.D.