

# Certificate of English Language Editing



## Manuscript Title:

Assessing residual motor function in patients with disorders of consciousness by brain network properties of task-state EEG

## Date of Revision:

September 26, 2021

### Abstract:

**Background:** Recent achievements in evaluating the residual consciousness of patients with disorders of consciousness (DOCs) have demonstrated that spontaneous or evoked electroencephalography (EEG) could be used to improve consciousness state diagnostic classification. Recent studies showed that the EEG signal of the task-state could better characterize the conscious state and cognitive ability of the brain, but it has rarely been used in consciousness assessment.

**Method:** A cue-guide motor task experiment was designed, and task-state EEG were collected from 18 patients with unresponsive wakefulness syndrome (UWS), 29 patients in a minimally conscious state (MCS), and 19 healthy controls. To obtain the markers of residual motor function in patients with DOC, the event-related potential (ERP), scalp topography, and time-frequency maps were analyzed. Then the coherence (COH) and debiased weighted phase lag index (dwPLI) networks in the delta, theta, alpha, beta, and gamma bands were constructed, and the correlations of network properties and JFK Coma Recovery Scale-Revised (CRS-R) motor function scores were calculated...

This document certifies that the manuscript listed above was copy edited for English language by LetPub, with regard to grammar, punctuation, spelling, and clarity. All of our language editors are native English speakers with long-term experience in editing scientific and technical manuscripts. We are committed to leveling the playing field for researchers whose native language is not English.

- Documents receiving this certification should be regarded as having undergone professional editorial revision for English language before submission. However, the authors may accept or reject LetPub's suggestions and changes at their own discretion and LetPub does not have editorial control over the submitted documents.
- The language quality of the submitted document is the sole responsibility of the submitting authors subject to those authors' adherence to LetPub's revisions and instruction. LetPub's provision of service does not constitute a guarantee or endorsement of the authors' work herein.
- Neither the research content nor the authors' intended meaning were altered in any way during the editing process.
- If you have any questions or concerns about this edited document, please contact us at [support@letpub.com](mailto:support@letpub.com)



LetPub is an author service brand owned and operated by Accdon LLC. Headquartered in the Boston area, we are a full-spectrum author services company with a large team of US-based certified language and scientific editors, ISO 17001 accredited translators, and professional scientific illustrators and animators. We advocate ethical publication practices and are an official member of the Committee on Publication Ethics (COPE).

For more information about our company, services, and partnership programs, please visit [www.letpub.com](http://www.letpub.com).

© 2021 Accdon, LLC. All Rights Reserved. Tel: 1-781-202-9968 Email: [info@accdon.com](mailto:info@accdon.com) Address: 400 Fifth Ave, Suite 530, Waltham, MA 02451, United States