



## Talk by Dr. Sokoliuk "EEG correlates in unresponsive patients with disorders of consciousness"

~~Desde~~ el Mar, 07/02/2023 - 13:00

**Tuesday, 7th  
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Sala de  
conferencias 1,  
CIMCYC

### **Title**

: Diagnostic  
and prognostic  
EEG correlates  
in unresponsive  
patients with disorders of consciousness



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**Abstract:** A sudden accident or stroke can cause severe brain damage leaving patients in an unresponsive state, unable to communicate with their surroundings. Following this acute coma, patients either recover, decease or remain in a chronic unresponsive state. In both the acute and the chronic unresponsive states, diagnosis and prognosis of this patient group is extremely challenging, since the gold standard to assess this (Coma Recovery Scale Revised (CRS-R)), mainly relies on overt behavioural responses. Importantly, using these standard clinical assessments alone leads to a high misdiagnosis rate (~40%), which can be significantly reduced when combined with brain imaging techniques to access brain activity patterns in the same patients. Ever since, electroencephalography (EEG) gained more attention in this field of research and has been recognised as a powerful bedside tool to improve

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accuracy of diagnosis and prognosis. My approach to investigate correlates of consciousness in unresponsive patients with disorders of consciousness (DOC) is to examine distinct cognitive processes by means of passive paradigms and simultaneous recordings of brain activity via EEG. I will present how this approach (i) can inform us about functional integrity of brain networks and (ii) give insight about future recovery of patients.