TRANSCRANIAL MAGNETIC STIMULATION FOR BORDERLINE PERSONALITY DISORDER: RATIONALE, STIMULATION SITE AND METHODS

L. Cailhol¹, E. Bui², B. Roussignol³, A.-H. Moncany³, R. Klein⁴, M. Simonetta-Moreau⁵, C. Thalamas¹, P. Birmes³, L. Schmitt²

¹*Centre d'Investigation Clinique, Centre Hospitalier Universitaire Purpan,* ²*Service de Psychiatrie et de Psychologie Médicale,*

³*Laboratoire du Stress Traumatique, Centre Hospitalo, Universitaire Purpan,* ⁴*Secteur G08, Centre Hospitalier Spécialisé Gérard Marchant,* ⁵*Service de Neurologie, Centre Hospitalo, Universitaire Purpan, Toulouse, France*

Borderline personality disorder (BPD) is characterized by pervasive instability in moods, interpersonal relationships, self-image, and behavior. This disorder is associated with a significant rate of suicide attempts and completed suicides (4 to 10%), a major impairment in social functioning and an increased healthcare utilization cost. Treatments available include psychotherapy and pharmacotherapy. Research has shown some efficacy of repetitive Transcranial Magnetic Stimulation (rTMS) on post-traumatic stress disorder and mood disorder which both share common biological or clinical features with BPD. It is then likely that rTMS might prove efficient on BPD symptoms.

A review of the literature on neuroimaging and neuropsychology of BPD shows a hypoactivity of the dorsolateral prefrontal cortex which may be a potential target site for rTMS.

We will conduct a pilot randomized sham-controlled trial on 30 BPD patients assessing the efficacy of a 10-day course of daily rTMS on neuropsychological tasks, BPD symptoms severity, risk taking behaviour, depression and general psychopathology.