

Special Issue

Noninvasive and Invasive Brain Modulation Targeting the Limbic Pain Matrix

Message from the Guest Editor

In case chronic pain individuals fail to achieve sustained pain relief, adjunct non-invasive and invasive brain modulation represent a reasonable and synergistic treatment option. Whilst the majority of the applied brain stimulation methods intended to modulate sensory-associated pain circuits, targeted brain modulation of affective cognitive neural pain transmission gained increased research and clinical recognition.

Invasive deep brain stimulation, radiofrequency ablation, gamma knife radiosurgery, and MR-guided focused ultrasound represent treatment modalities that have been trialed in a reasonable number of in-human pain studies. However, in-human studies, including invasive and non-invasive brain modulation techniques, targeting solely or in combination with the limbic pain-associated brain structures either on the surface or deeper brain structures are lacking. Thus, the aim of this Special Issue ranges from noninvasive to invasive brain modulation techniques and from reversible neurostimulation to non-reversible lesioning procedures utilizing radiation or ultrasound in order to modulate affective cognitive limbic pathways relevant for pain perception and processing.

Guest Editor

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