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Modern Bioelectromagnetism Methods for Optimizing Diagnosis and Therapy in Epilepsy

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Message from the Guest Editors

Epilepsy are among the most common neurological diseases. For the refractory patients with focal epilepsy, epilepsy surgery is currently the most effective treatment option. However, only 15-20% of those patients are eligible for epilepsy surgery. The main reasons are the insufficient localization of the epileptogenic zone with standard diagnostic means, and the overlap of the epileptogenic zone with eloquent cortical areas, so that it cannot be surgically removed without considerable neurological deficits.

Our Special Issue aims to highlight new approaches to improve this situation with a focus on personalized methods. On the diagnostic side, we welcome contributions for new multimodal electroencephalography (EEG), magnetoencephalography (MEG) and magnetic resonance imaging (MRI) neuroimaging methods to improve the localization of the epileptic cortex and eloquent cortex mapping. On the therapeutic side, our Special Issue will focus on modern approaches to epilepsy surgery as well as non-invasive brain stimulation methods such as targeted and optimized multi-channel transcranial electric (TES) and magnetic (TMS) stimulations to reduce seizure frequency and severity.



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Specialsue





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Message from the Editor-in-Chief

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