

In the last decade the link between HFOs, epileptogenic tissue, and cognitive processing were investigated in multiple studies. Scientific teams across the world confirmed higher HFO rates in seizure generating tissue, correlation between HFO rates with seizure frequency, and HFO association with normal brain function. Despite these corroborated findings, the translation into clinical practice and precise definition of HFO role in normal brain is still lacking. Some major gaps are an unclear definition of HFO, which varies across the laboratories and in literature, different methods of HFO detection and lack of data sharing that have limited the reproducibility of experimental results. Without a unified approach researchers and clinicians cannot reliably share their findings across institutes. In order to correctly identify the HFO events in clinical recordings that are responsible for disease and cognitive processing the data and algorithms have to be shared and made widely available for all HFO researchers.