**Introduction**

Single pulse electrical stimulation (SPE) has been shown to evoke a large variety of response types, including defined responses (SPE) (Cicinelli et al., 2000). High frequency stimulation (HFS) (Cicinelli et al., 2000, 2013) has been shown to modulate the generation of spikes. The definition of different responses in the motor cortex, however, remains controversial. The aim of the current study was to investigate the effects of high frequency stimulation on neuroplasticity in the motor cortex.

**Methods**

To determine the effects of high frequency stimulation on neuroplasticity in the motor cortex, we performed a series of experiments using single pulse electrical stimulation. The stimulation protocol was designed to evoke a range of response types, including defined responses and high frequency stimulation.

**Results**

The results of the current study showed that high frequency stimulation (HFS) can modulate the generation of spikes in the motor cortex. The number of spikes generated in response to high frequency stimulation was significantly higher than in response to single pulse electrical stimulation (SPE).

**Conclusions**

The results of this study support the hypothesis that high frequency stimulation can modulate the generation of spikes in the motor cortex. Further research is needed to determine the mechanisms underlying these effects.

**References**
