

Abstract of Presentation for Neuroscience Workshop

Titel :

Plasticity in the Vergence System

Abstract :

Introduction :

Vergence movement is a slow disconjugate eye movement which is triggered by image disparity and accommodation. Two experimental mechanisms to transiently change the vergence system have been described in the past.

Both adaptive processes are transient and the underlying mechanisms are poorly understood.

Thus we **plan** to investigate the mechanisms of plasticity in the vergence system and to induce targeted and controlled plastic changes.

Methodes:

- A haploscopic experimental setup is built and evaluated
- Vergence eye movements are triggered and measured videobased

Results and Conclusions:

- Our custom made haploscopic setup is effective for measuring vergence movements
- Vergence responses are maintained during a saccadic eye movement
- Convergence and divergence show different kinetics, suggesting different regulating mechanisms
- *Tau* and latency seem appropriate measures for assessing plasticity phenomena