

Stellingen behorende bij het proefschrift:

**Timing in the cerebellum during motor learning:
from neuron to athlete to patient**

1. Inhibitory and excitatory projections to the cerebellar nuclei shape membrane potential dynamics and change during associative learning. Excitatory mossy fiber projections have only a limited contribution to neuronal activity underlying conditioned behavior. (*this thesis*)
2. Perineuronal nets in the cerebellar nuclei change during associative learning and removing these nets leads to enhanced learning. (*this thesis*)
3. Sport athletes use optimal eye movements and cognitive load dynamics to achieve superior spatio-temporal trajectory prediction, a process that recruits the cerebellum. (*this thesis*)
4. The cerebellum is activated and contributes to temporal processing during the observation of actions made by others. (*this thesis*)
5. The cerebellum is involved in spatio-temporal prediction and temporal interval learning. (*this thesis*)
6. The Gordian Knot of cerebellar encoding principles cannot be solved simply by cutting the cerebellum in half - that would only result in brain damage. Only through empirical research and dedication its principles can be uncovered.
7. Coding is a skill every scientist benefits from. It allows for tight control over your data analysis, it can save you lots of time - and it reduces your chance of developing repetitive strain injury.
8. Finishing a project you've started is highly important, even though it demands a fair deal of perseverance. Great data does not advance human knowledge until it is shared with the world.
9. Hard scientific evidence should have a leading role in policy making, and should always outweigh the beliefs and interests of politicians and companies. That is the only way to contain the effects of global warming.
10. Friday is a bad day for experiments.
11. "It always seems impossible until it's done." - Nelson Mandela