

Stellingen behorende bij het proefschrift:

Saccade Planning and Execution by the Lateral and Medial Cerebellum

- 1) Glissades are not an adaptable form of oculomotor behavior and do not contribute to getting the eye closer to the target. (*this thesis*)
- 2) Visual dentate nucleus neuron activity is rarely driven by one factor. Their response profile is highly heterogeneous and a single neuron can be modulated by visual, movement, and reward related stimuli. (*this thesis*)
- 3) Neurons in the lateral cerebellum can plan a saccade on color based visual information presented at the center of the visual field, but also on shaped based visual information presented peripherally. (*this thesis*)
- 4) Purkinje cell simple spike and complex spikes in the lateral cerebellum modulate in opposite phase for saccade direction, in the absence of movement error. (*this thesis*)
- 5) Visual dentate nucleus neurons are part of the D-zones of the cerebellum and thus are connected to the same circuit controlling higher visual functions. (*this thesis*)
- 6) The primate brain is one of the most intricate biological structures in existence and will probably continue to amaze us in ways we had not thought possible.
- 7) Doubt is clearly a value in science. It is important to doubt and that the doubt is not a fearful thing, but a thing of great value. - Richard P. Feynman
- 8) The fact that in primates the evolutionary expansion of the cerebral cortex happened in parallel with that of the cerebellum indicates that much remains to be learned about cerebro-cerebellar connectivity and function.
- 9) In behavioral neurosciences, a good task and training on that task are as essential as the scientific question.
- 10) Overall accessibility of publications and openly sharing methods, code, data, and techniques improves the quality of research.
- 11) By continually taking small steps, even the most colossal project eventually gets done.