

Stellingen behorende bij het proefschrift

***In vivo* Synaptic Transmission in Mouse Models for
Neurological Disorders**

1. A gain of function of excitatory synapses contributes to the pathophysiology of Angelman syndrome.
2. Spontaneous activity tonically depresses synapses. This should be taken into account when designing slice experiments.
3. Aberrant mTOR signaling does not necessarily lead to alterations in synaptic transmission, and the adage 'Form follows function' does not always hold for synaptic mutants of the calyx of Held synapse.
4. The large difference in basic synaptic parameters such as spontaneous firing frequency and synaptic strength of the calyx of Held synapse between different genetic backgrounds again demonstrates the need to design properly controlled experiments when studying the impact of mutations on synaptic transmission.
5. The ambient GABA concentration in the auditory brainstem is too low to activate the GABA_B receptor.
6. I do not mean to suggest that scientific differences should be settled by universal suffrage, but I do conceive that solid proofs must be met by something more than empty and unsupported assertions. (Thomas Henry Huxley)
7. A better understanding of the cortical motor system is essential for improving the decoding algorithms of motion signals, and thus contribute to the development of neuroprosthetic devices for paralyzed patients.
8. A good way to present your research is to explain it in a way that even your grandmother can understand.
9. Completing a PhD does not provide an answer to the question of what do you want in life.
10. The timing precision of tuning for interaural timing differences of neurons in the medial superior olive depends mostly on the linear summation of excitatory inputs. (van der Heijden et al, 2013)
11. Swiftly the brain becomes an enchanted loom, where millions of flashing shuttles weave a dissolving pattern — always a meaningful pattern — though never an abiding one. (Charles Sherrington)