

Stellingen behorende bij het proefschrift
“Development and Plasticity of Synaptic Function
in the Rodent Auditory Brainstem”

1. The decrease in the membrane resistance of the principal neurons of the medial nucleus of the trapezoid body that happens around the time of calyx formation helps to secure a one-to-one relationship between the pre- and postsynaptic partners.
2. Suprathreshold postsynaptic activity triggered by quantal-sized EPSCs might provide the functional drive for calyx formation in the absence of peripheral activity.
3. The complex waveform of the calyx of Held can be used to quantify both synaptic strength and postsynaptic excitability and is therefore highly suitable for pharmacological and genetic studies of synaptic transmission *in vivo*.
4. Already before hearing onset, the rodent calyx of Held synapse has assumed essentially adult-like properties.
5. Owing to developmental effects, tonic depression by spontaneous activity, and the unphysiological extracellular calcium concentrations typically used in slice solutions, the release probability of the adult calyx of Held synapse has been vastly overestimated.
6. Following a career in science can be a demanding endeavor. This perception often results from the relentless pursuit of an inadequate research design.
7. Foreigners learning Dutch would benefit a great deal if Dutch songs were more successful internationally (D. Schon *et al.*, Songs as an aid for language acquisition. *Cognition* 106, 975 (Feb, 2008)).
8. “Religion is the masterpiece of the art of animal training, for it trains people as to how they shall think.” (Arthur Schopenhauer)
9. The 1957 Everett’s Many-Worlds Interpretation of quantum mechanics supports the existence of free will.
10. There are three deviant types of political systems: tyranny, oligarchy and democracy. In democracy great leaders can only arise by accident (interpretation of Plato by P. Tutea).
11. The dissociated neuronal cultures are not what they seem.