

Stellingen

behorend bij het proefschrift

Neural Mechanisms underlying Motor Learning

1. Learning-induced axonal growth and synapse formation probably take place in many brain areas; the fact that we observed this phenomenon in the cerebellum during eyeblink conditioning is merely due to the fact that the neural circuits involved in this learning task have been delineated so precisely. (this dissertation)

2. Long-term depression of the parallel fiber – Purkinje cell synapse cannot explain the millisecond precise timing of the Purkinje cell simple spike suppression during conditioned eyelid responses. (this dissertation)

3. The cerebellar eyeblink conditioning field should stop thinking in terms of ‘essential places’ and ‘essential forms of plasticity’ underlying memory formation but instead focus more on the relative contribution of each part of the olivo- and pontocerebellar systems. (this dissertation)

4. It is at least surprising that Purkinje cell functioning and motor learning are so minimally affected after retraction of Bergmann glial processes. (this dissertation)

5. So far, mouse transgenics has brought us more confusion than fundamental new insights in cerebellar functioning during eyeblink conditioning. (this dissertation)

6. Never underestimate the contribution of the amygdala to eyeblink conditioning. (this dissertation)

7. Statements such as “The cerebellum is *not just* involved in motor performance, but also in cognitive functioning”, aimed to make cerebellar research more attractive, are (still) based on the Platonic-Christian-Enlightenment conception that the immaterial soul is superior to the material body.

8. Mice don't like neuroscientists.
Eric Kandel, Keynote lecture, Society for Neuroscience 2009

9. Wozu überhaupt Bewusstsein, wenn es in der Hauptsache überflüssig ist? (Waar toe eigenlijk bewustzijn, als het in hoofdzaak overbodig is?)
Friedrich Nietzsche, Die Fröhliche Wissenschafts, Vom “Genius der Gattung”

10. Est-ce donc que l'âme est encore un sujet trop noble pour ses faibles lumières? Abaissons-la donc à la matière? (Is de geest soms een te verheven onderwerp voor zijn eigen zwakke inzichten? Laten we hem dan tot materie afdalen?)
Blaise Pascal, Pensées

11. Promoveren doe je voor je moeder. (dit proefschrift, p. 3)