

Spatio-Temporal and Multisensory Integration:  
The relationship between sleep and the cerebellum

Propositions

1. The cerebellum is a “timing” machine. (this thesis)
2. The cerebellum interacts with the hippocampus during the spatial and temporal prediction. (this thesis)
3. The cerebellum is the responsible brain region to establish the prediction, integrating spatial and temporal information. (this thesis)
4. The cerebellar learning of the predictive timing can be facilitated by sleep. (this thesis)
5. Cross-modal integration between the anatomically wired sensory information can occur even during sleep, which induce the selective enhancement of learning on subsequent sleep. (this thesis)
6. “An idea is nothing more or less than a new combination of old elements”.  
– *James Webb Young*
7. We must change premises rather than change ourselves when we encounter difficulties in science.
8. It’s not always true that the reasonable solution is directly linked to exciting discovery.
9. Keep challenging is the only way to make time-tolerable masterpieces.
10. Making hundreds of mistakes quickly in an early stage is an effective strategy to find a goal in the fastest manner.
11. “Each night, when I go to sleep, I die; and the next morning, when I wake up, I am reborn.” – *Mahatma Gandhi*