Statements belonging to the PhD thesis

Targeting phosphodiesterase type 4 for improving cognitive fronto-striatal functioning
a translational approach

1. PDE4 regulates dopaminergic modulation of fronto-striatal circuits (this thesis)
2. PDE4 inhibition shows a beneficial effect on sensory gating at a dose that has no adverse emetic effects following single-dose administration (this thesis)
3. Stimulation of the infralimbic cortex leads to a tri-phasic response in a subset of neurons in the substantia nigra pars reticulata (this thesis)
4. PDE4 inhibition appears to affect both the direct pathway as well as the indirect pathway with a relative preference for the latter (this thesis)
5. PDE4 inhibition is able to normalize the motor impulsivity deficits induced by hypo dopaminergic medial prefrontal cortex functioning (this thesis)
6. Increased understanding of the subcellular localization and unraveling of the signalosome concept of PDEs including their function and dysfunction in the fronto-striatal circuits will contribute to the design of new selective inhibitors and enhance the potential of PDE inhibitors as therapeutics in fronto-striatal circuits
7. EEG and ERP correlates of the tri-phasic response can be used as biomarkers in disorders characterized by fronto-striatal circuitry dysfunction
8. Thought without action is procrastination, action without thought is impulsivity
9. “The world as we have created it is a process of our thinking. It cannot be changed without changing our thinking” – Albert Einstein (1879-1955)
10. “Life is what happens to you while you’re busy making other plans” – John Lennon (1940-1980)

Pim Heckman
04 juli 2017