

Mechanistic early phase clinical pharmacology studies with disease-modifying drugs for neurodegenerative disorders

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Stellingen behorende bij het proefschrift MECHANISTIC EARLY PHASE CLINICAL PHARMACOLOGY STUDIES WITH DISEASE-MODIFYING DRUGS FOR NEURODEGENERATIVE DISORDERS

- 1 We are at the forefront of a paradigm shift in the treatment of neurodegenerative disorders. (*this thesis*)
- 2 First-in-man studies with potential disease-modifying drugs for neurodegenerative disorders should not be performed without using pharmacodynamic biomarkers. (this thesis)
- 3 Despite its large within- and between-subject variability in PBMCs, pRAB10 is a suitable pharmacodynamic biomarker for measuring LRRK2 kinase activity. (this thesis)
- 4 LRRK2 inhibition is a promising therapeutic strategy to slow down Parkinson's disease, especially in LRRK2-mutation carriers, but also in idiopathic Parkinson's disease. (this thesis)
- 5 As long as we do not fully understand the molecular mechanisms underlying neurodegenerative disorders, it remains extremely difficult to develop effective pharmacologic interventions.

 (The problem is that we don't understand the problem Paul MacCready)
- 6 Development of neurodegenerative disorders likely requires simultaneous activation of more than one pathogenic pathway, and multi-targeted, personalized therapies are therefore our best shot to effectively halt disease progression.
- 7 The COVID-19 pandemic often did not change the evaluation of the four basic principles of medical ethics and thus it was essential that clinical trials were restarted as soon as possible. (Vissers et al. Br J Clin Pharmacol. 2021;87:837–844)
- 8 Improving clinical trial efficiency is our best strategy to safeguard affordability of new treatments in the future.
- 9 Pole Pole (Swahili), you will reach the summit if you just keep climbing.
- 10 Management is both an art and a science.
- Investing in knowledge always creates most value in the end. (adapted from Benjamin Franklin)
- 12 All truly great thoughts are conceived while cycling. (adapted from Friedrich Nietzsche)