

Stellingen behorende bij het proefschrift

## **Molecular Mechanisms of C9ORF72-linked Frontotemporal Dementia and Amyotrophic Lateral Sclerosis**

1. Trolox and ISRIB prevent poly-GR and poly-PR induced cellular toxicity, respectively (this thesis).
2. Expression of 36 pure G<sub>4</sub>C<sub>2</sub> hexanucleotide C9ORF72 repeats, with ~100bp upstream and downstream human flanking sites, in a transgenic mouse model is sufficient to evoke RAN translation *in vivo* (this thesis).
3. HR23B preferentially co-localizes with p62, pTDP-43 and poly-GA in postmortem brain tissue from C9FTD/ALS patients (this thesis).
4. Poly-GR levels in CSF and PBMCs from C9FTD/ALS patients are very low if not totally absent (this thesis).
5. DPR toxicity is independent of pTDP-43 mis-localization and/or its aggregation (this thesis).
6. Epistasis and the presence of somatic mosaicism are additional genetic mechanisms that may explain a part of the missing heritability (Calero et al., 2015).
7. REST levels play a central role in protecting ageing neurons from death and in maintaining cognitive capacity and longevity (Tao et al., Nature 2014).
8. Reduction of the extracellular matrix can increase synaptic plasticity and reverse early memory deficits in a mouse model of Alzheimer's disease (Végh et al., 2014).
9. Unequal payment for equal work results in moral uproar in multiple animal species (Frans de Waal, 2014).
10. Many ecosystem services are affected by the configuration and the amount of natural vegetation and agricultural land use (Willem Verhagen, 2019).
11. To be on a quest is nothing more or less than to become an asker of questions (Sam Keen).

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