

A venture into the epigenetics of aging and Alzheimer's Disease

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Statements

belonging to the PhD thesis

A VENTURE INTO THE EPIGENETICS OF AGING AND ALZHEIMER'S DISEASE



ROY LARDENOIJE

1. Distinguishing between DNA methylation and hydroxymethylation in the brain allows for the detection of epigenetic alterations, such as in *OXT*, not possible with techniques utilizing only bisulfite-converted DNA. (this thesis)
2. Due to the discrepancy in observations regarding global levels of epigenetic markers in Alzheimer's disease it may be more fruitful to use targeted approaches, focusing on specific Alzheimer's disease-related genomic regions. (this thesis)
3. DNA methylation changes of genes associated with Alzheimer's disease (detectable in blood) may be useful for early diagnosis, may be indicative of dysregulated molecular pathways leading to the development of dementia, and may offer novel therapeutic targets. (this thesis)
4. Both epigenetic susceptibility and resilience may play an important role in the development of Alzheimer's disease dementia. (this thesis)
5. The integration of epigenomic data with genetic and other "omic" data modalities will be vital in understanding the causes and downstream consequences of disease-associated epigenetic changes on AD pathology (Lunnon & Mill, 2013, *Am J Med Genet B Neuropsychiatr Genet*)
6. Sporadic Alzheimer's disease dementia is not a single disease.
7. Research into complex age-related diseases should focus on the prevention of aging.
8. The most important outcome of a PhD project is not the research, but the researcher. (this thesis)
9. The human being is a self-propelled automaton entirely under the control of external influences. Willful and predetermined though they appear, his actions are governed not from within, but from without. He is like a float tossed about by the waves of a turbulent sea. (Nikola Tesla)
10. A learning experience is one of those things that says, "You know that thing you just did? Don't do that." (Douglas Adams)
11. Nothing is hidden. (Ludwig Wittgenstein)