Exploring sphingolipid function in the pathogenesis of Alzheimer's disease

Propositions

accompanying the dissertation

Exploring sphingolipid function in the pathogenesis of Alzheimer's disesase

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1. Alzheimer's disease is the single biggest unmet medical need in neurology. (Martin Citron, 2002)
2. Exploration of lipid dysregulation in AD and identification of novel therapeutic agents acting through relevant lipid pathways offers new and effective options for the treatment of this devastating disorder. (Gilbert Di Paolo, 2011)
3. A metabolic shift favoring ceramide production over sphingosine-1-phosphate, contributes to amyloid-β formation, inflammation and neurodegeneration in Alzheimer's disease. (this thesis)
4. $CERT_L$ plays an important role in characteristic processes of AD by affecting Aβ production and aggregation, neuroinflammation and sphingolipid disbalance typical of AD. (this thesis)
5. The most prominent effects of FTY720 on cerebral sphingolipid levels were observed in the E4FAD mice. (this thesis)
6. Sphingolipids could be used in neurodegenerative diseases and neuropsychiatric disorders as surrogate markers of treatment response. (this thesis)
7. There is a compelling need to understand the mechanisms of actions of the many ceramide species and sphingoid bases, as well as other emerging bioactive sphingolipids. (Yusuf Awni Hannun & Lina Marie Obeid, 2018)
8. Nothing is ever really lost to us as long as we remember it. (Lucy Maud Montgomery)
9. The wisest mind has something yet to learn. (George Santanaya)
10. Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less. (Marie Curie)