

# Brain sterol metabolism : modulating Alzheimer's disease

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# Stellingen

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## Brain Sterol Metabolism – Modulating Alzheimer’s Disease

*Tim Vanmierlo*

30 September 2010

1. Increased cholesterol turnover in the brain of aged APPSLxPS1mut mice is secondary to Alzheimer’s disease pathology and might act as a rescue mechanism. (*this thesis*)
2.  $\beta$ -amyloid plaque deposition is at least partially dissociated from cognitive performances. (*this thesis*)
3. Plant sterols accumulate irreversibly within murine brains. (*this thesis*)
4. Brassicasterol in the cerebrospinal fluid is good additional biomarker in early stage Alzheimer’s disease. (*this thesis*)
5. Cholesterol in brain cell membranes is a dynamic cholesterol pool, playing an important role in coping with pathological Alzheimer’s disease manifestation. (Ledesma et al, 2006)
6. Nutrition can play a pivotal role in the development of Alzheimer’s disease.
7. Compared to plant sterol intake, plant stanol intake is more advisable in the lowering of plasma cholesterol concentrations in the prevention of atherosclerosis. (Talati et al., 2010)
8. Alterations in the peripheral cholesterol metabolism are modulating the risk of Alzheimer’s disease by secondary mechanisms. (Takechi et al., 2010)
9. APPSLxPS1mut mice are as leaky as a sieve.
10. Alzheimer’s disease is a luxury problem in Botswana.

# Stellingen

behorend bij het proefschrift

## Het Brein Sterolmetabolisme – Moduleren van de Ziekte van Alzheimer

*Tim Vanmierlo*

30 September 2010

1. Verhoogde cholesterol turnover in het brein van de oudere APPSLxPS1mut muis is secundair aan de pathologie van de ziekte van Alzheimer en kan fungeren als een reddingsmechanisme. (Dit proefschrift)
2.  $\beta$ -amyloïde plaque depositie is op zijn minst gedeeltelijk losgekoppeld van de cognitieve prestatie (Dit proefschrift)
3. Plantensterolen accumuleren onomkeerbaar in muizen breinen. (Dit proefschrift)
4. Brassicasterol in de cerebrospinale vloeistof is een goede bijkomende biomarker voor de ziekte van Alzheimer in een vroeg stadium. (Dit proefschrift)
5. Cholesterol in de celmembranen van het brein is een dynamische verzameling die een belangrijke rol speelt in het omgaan met de pathologische manifestatie van de ziekte van Alzheimer. (Ledesma et al.,2006)
6. Voeding kan een sleutelrol spelen in de ontwikkeling van de ziekte van Alzheimer.
7. De inname van plantenstanolen is meer wenselijk dan de inname van plantensterolen om plasma cholesterol concentraties te verlagen met het oog op de preventie van atherosclerose. (Talati et al., 2010)
8. Veranderingen in de perifere cholesterol stofwisseling moduleren het risico op de ontwikkeling van de ziekte van Alzheimer via secundaire mechanismen. (Takechi et al.,2010)
9. APPSLxPS1mut muizen zijn zo lek als een mandje.
10. De ziekte van Alzheimer is een luxe probleem in Botswana.