

Implication of the Nucleoredoxin like gene 2 (NXNL2) in the pathophysiology of Alzheimer's disease.

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Research question and background

Our group at the Institut de la vision in Paris are involved in research on neurotrophic factors for treating neurodegenerative diseases. We have identified a novel trophic factor that belongs to the thioredoxin family, the Rod-derived Cone Viability Factors (RdCVFs). Interestingly, *NXNL1*, the gene encoding for RdCVF also produces by alternative splicing an active thioredoxin that regulates the oligomeric status of TAU in the retina. We are interested in extending our observations in the retina of patients suffering from inherited retinal degenerations to common diseases with tauopathy as Alzheimer's disease. We are more specifically involved in differential transcriptomic and proteomic studies using brain specimens of Alzheimer's disease patients and age-matched unaffected controls that we obtained from NeuroCEB, a French platform in France.

Methods and tissues used

In order to validate our results, we requested the Netherlands Brain Bank for age-matched unaffected controls specimens to match the number of Alzheimer's disease specimens we analyzed.

Results and conclusion

The results of that study are part of a manuscript in preparation.