

ALZHEIMER'S DISEASE AND HERPES

Main concepts

- 80% of the population is HSV1-positive
 - HSV1 infection occurs usually at a young age ([Looker, 2005](#))
 - HSV1 stays in the body in a latent state in the trigeminal ganglion and periodically reactivates, symptomatically or not ([Miller, 2008](#)).
- HSV1 is a risk factor for AD only in APOE4-positive subjects (30% of the population) ([Linard, 2020](#))
- Systematic therapy againsts HSV1 reduces by ~15% the risk of AD ([Linard, 2022](#))
- How HSV1 modulates the occurrence of AD remains unclear
 - HSV1 reactivation increases A β production ([DeChiara, 2019](#))
 - Can be associated to a potential antimicrobial function of A β
 - HSV1 reactivation changes of tau phosphorylation ([DeChiara, 2019](#))
 - HSV1 may modulate inflammation markers
 - But today there is no experimental evidence for the induction of all the hallmarks of AD pathology.