Tetracyclines for neurodegenerative disorders, what about Pentacyclines specifically?

A perspective

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There have been several studies on tetracyclines in the past decade, “actually curing” Parkinson’s Disease as well as Alzheimer’s Disease, particularly Doxycycline®, which happens to demonstrate from the most recent studies that Doxycycline’s mechanism of action may block aggregation and seeding by interacting with the repeats of the protein (Tabaee Damavandi, 2021). Earlier studies mention Minocycline (Thomas, 2004), but Pentacycline® is particularly longer and has a similar structure to Doxycycline®, it is thus a “longer version” of the other tetracyclines, so why not testing Pentacycline which is already in the market, but for Alzheimer’s and Parkinson’s Disease? No studies have been found doing this previously. It would be more rational to fund those studies, instead of trying “obscure” new pathways that might not work and take longer time. The very first study on pentacycline was carried out in 2008 (Sun, 2008), but its purpose was to find novel antibiotics. A recent study on Ursolic study (Ramos-Hryb, 2017) shows too that Ursolic Acid which has an elongated although not optimal structure like the tetracyclines antibiotics that it causes a regression against Parkinson’s disease.

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