SMALL MOLECULES FOR USE IN PREVENTING AND/OR TREATMENT OF NEURODEGENERATIVE DISEASES

*Technology Offer*

KEYWORDS

Human skin allergens, Nrf2 pathway, neurodegenerative diseases, Alzheimer´s Disease, treatment

TECHNOLOGY DESCRIPTION

A panel of **skin allergens** or their derivatives, which exhibit extreme or strong capacity in **neuroprotection by targeting the Nrf2 signalling pathway**, for the treatment and/or prevention of neurodegenerative diseases, namely **Alzheimer´s Disease (AD)**.

Improvements:
- electrophilic properties that activates Nrf2, inducing the transcription of several protective genes
- no pain
- intranasal administration
- ability to cross the blood brain barrier
- increase antioxidant genes and decrease pro-inflammatory genes
- induce the translocation on Nrf2 transcription factor into the nucleus and its activation
- decrease the gene and the protein levels of iNOS and IL-1β
- induce a decrease in NO levels, an anti-inflammatory role
- low levels of Aβ peptides
- improves cognition in a trangenic mouse model of AD
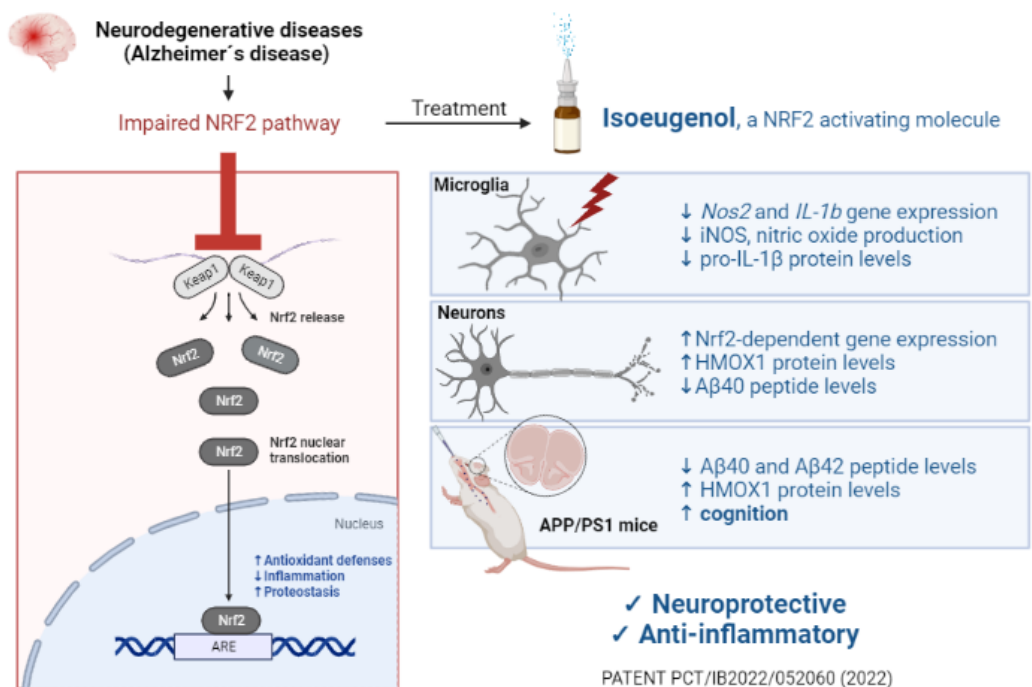
Application of the molecules for activating the the Nrf2 signalling pathway for the treatment and/or prevention Alzheimer´s Disease (AD).

ADVANTAGES OVER ALTERNATIVE TECHNOLOGIES

There are no drugs for the treatment of Alzheimer's disease
Only aducanab can be a competitor. However, it has modest clinical results

APPLICATIONS

Alzheimer´s Disease and other neurodegenerative diseases:
- treatment and/or prevention

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