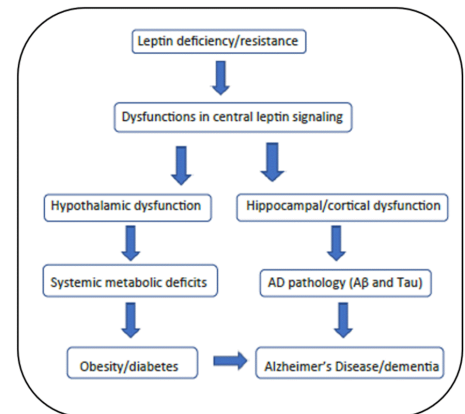


Tackling Alzheimer's Comorbidities: A Promising Leap Forward

MA-[D-Leu-4]-OB3: A Novel Approach to Addressing Multiple Challenges in Dementia Care

Background:

Alzheimer's disease (AD) is often accompanied by multiple comorbidities that complicate diagnosis, treatment, and overall care. Recent studies indicate that 91.8% of individuals with dementia have at least one additional health condition; 33.8% live with two to three, and 16.9% suffer from six or more. Common comorbidities include cardiovascular disease, diabetes, depression, hearing and vision impairments, and chronic inflammatory disorders. These overlapping conditions not only worsen patient outcomes and quality of life but also reduce treatment efficacy and increase healthcare burden. Moreover, the clinical overlap can mask or delay diagnosis of both AD and comorbid conditions, further impeding the delivery of effective, holistic care.



Grasso, P. (2022) *Frontiers in Aging Neuroscience* 14:861350

Technology:

MA-[D-Leu-4]-OB3, a synthetic peptide leptin mimetic developed by Dr. Patricia Grasso at Albany Medical College, addresses key metabolic and inflammatory comorbidities frequently observed in Alzheimer's disease (AD). It has demonstrated the ability to improve glycemic control, reduce neuroinflammation and neurodegeneration, and enhance cognitive performance in diabetic mouse models. Mechanistically, it increases insulin sensitivity, lowers pro-inflammatory cytokines such as TNF- α , and normalizes blood glucose—targeting key contributors to neurodegeneration. These effects may help break the biochemical link between metabolic dysfunction and cognitive decline. Given its multi-functional profile, MA-[D-Leu-4]-OB3 shows promise as a disease-modifying agent for AD and as a therapeutic candidate for individuals with prediabetes, Type 2 diabetes, systemic inflammation, or lipid abnormalities—conditions often under-addressed in the AD population.

Technology Readiness

Available for Licensing Ready for Phase 1 clinical trials

Intellectual Property

US10195254B2

Advantages:

- Improved Insulin Sensitivity
- Reduction in Neuroinflammation
- Crosses the Blood-Brain Barrier
- Targets issues associated with cognitive decline
- Self Administered

Applications:

- Alzheimer's Disease and AD-like Dementias
- Pre-Diabetes Intervention
- Diabetes-Associated Cognitive Impairment
- Vascular and Mixed Dementias

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