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## **It is Time to Perform Formal Investigations of Psychophysiological Interventions That Might Slow The Progress of Alzheimer's Disease**

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Given the exposés of chronic falsification of data on etiology and treatment of Alzheimer's disease (Piller, 2025) combined with devastating cuts in federal funding for basic and applied research, it is time to perform formal investigations of psychophysiological interventions that might slow the progress of Alzheimer's disease. Numerous tiny, uncontrolled reports hint that several psychophysiological interventions might be able to slow the progress of the disorder. These interventions deserve further investigation given the failure of the current crop of medicine-based treatments and preventives (with the exception of shingles vaccines (Eyting et al, 2025)).

There is reasonably strong evidence that moderate Alzheimer's is related to inflammation in the central nervous system (Irwin et al, 2019; Schmidt et al, 2002). Medications that reduce peripheral inflammation do not have a consistent protective effect on the progression of stage four Alzheimer's but both Photobiomodulation (PBM) and Pulsed Electromagnetic Fields (PEMF) have shown promising results for reducing inflammation in the CNS (Hamblin, 2019). Several small clinical studies utilizing these techniques have shown promising results for moderating cognitive decline for Alzheimer's disease (Arendash, 2019; Berman and Nichols, 2019).

Small, controlled pilot studies of PEMF and PBM utilizing accepted outcome measures of cognition and memory could be performed with minimal funding from private groups to ascertain whether full-scale studies are warranted. It is time to give them the trials they deserve.

### **References**

Arendash, G., Cao, C., Abulaban, H., Baranowski, R., Wisniewski, G., Becerra, L., Andel, R., Lin, X., Zhang, X., Wittwer, D. and Moulton, J., (2019). A clinical trial of transcranial electromagnetic treatment in Alzheimer's disease: Cognitive enhancement and associated changes in cerebrospinal fluid, blood, and brain imaging. *Journal of*

*Alzheimer's disease*, 71(1), pp.57-82.

- Berman, M., Nichols, T. (2019). Treatment of Neurodegeneration: Integrating Photobiomodulation and Neurofeedback in Alzheimer's Dementia and Parkinson's: A Review. Photobiomodulation, Photomedicine, and Laser Surgery <https://doi.org/10.1089/photob.2019.4685>
- Eyting, M., Xie, M., Michalik, F., Heß, S., Chung, S., & Geldsetzer, P. (2025). A natural experiment on the effect of herpes zoster vaccination on dementia. *Nature*, 641(8062), 438-446. <https://doi.org/10.1038/s41586-025-08800-x>
- Hamblin, M. (2019) Photobiomodulation for Alzheimer's Disease: Has the Light Dawned? *Photonics*, 6(3), 77; <https://doi.org/10.3390/photonics6030077>
- Irwin, M., Vitiello, M. (2019) Implications of sleep disturbance and inflammation for Alzheimer's disease dementia. *Lancet* 18(3) p 296-306
- Piller, C. (2025) The Devastating Legacy of Lies in Alzheimer's Science. <https://www.nytimes.com/2025/01/24/opinion/alzheimers-fraud-cure.html?smid=nytcore-android-share>
- Schmidt, R., Schmidt, H., Curb, D., Masaki, K., White, L., Launer, L. (2002) Early inflammation and dementia: A 25-year follow-up of the Honolulu-Asia aging study- *Annals of Neurology* <https://doi.org/10.1002/ana.10265>