

BrainHQ Shown to Significantly Up-regulate Acetylcholine Production



METHODS

92 healthy adults aged 65+



Randomized to computerized cognitive training for 10 weeks, either:

BrainHQ



Control



FEOBV-PET measured cholinergic binding before and after training.



NIH NIA SBIR Phase IIb

R44AG039965 and
3R44AG039965-06S1

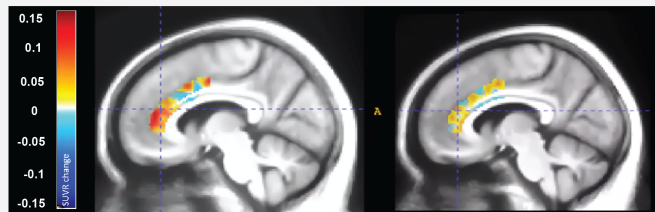


FINDINGS

Cholinergic binding increased:

Anterior Cingulate Cortex (primary region of interest)

BrainHQ (2.3% increase) Control (not significant)



Hippocampus

BrainHQ (4.7% increase) Control (not significant)

Parahippocampal Gyrus

BrainHQ (5.3% increase) Control (not significant)

Improving Neurological Health in Aging via Neuroplasticity-based Computerized Exercise (INHANCE): A Prospective, Double-Blind, Active-Controlled, Randomized Clinical Trial

CONCLUSIONS

In the first demonstration of cholinergic system plasticity, BrainHQ cognitive training mitigates age-related cognitive decline by enhancing cholinergic network health.



2.3% improvement over 10 weeks nearly offsets
2.5% loss over a decade of natural aging

Citation: Reference: Attarha, M., Pelegrino, A., Ouellet, L., Toussaint, P., Grant, S, Van Vleet, T., de Villers-Sidani, E. (2025). <http://dx.doi.org/10.2196/75161>