

Drug/Drug and Drug/Biologic Combinations for Alzheimer's Disease

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FINGER Study: Recipe of Lifestyle Interventions for Cognition



- Gold standard of testing any type of therapy or intervention – Randomized Control Trial (RCT)
- Large, rigorous study of 1,200 individuals
 - Half received intervention and half received standard of care
- First solid evidence that recipe of lifestyle interventions reduces cognitive decline
- Needs to be replicated in more diverse populations

Summary of the evidence on modifiable risk factors for cognitive decline and dementia: A population-based perspective

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Factors that Increase/ Decrease Risk of Cognitive Decline

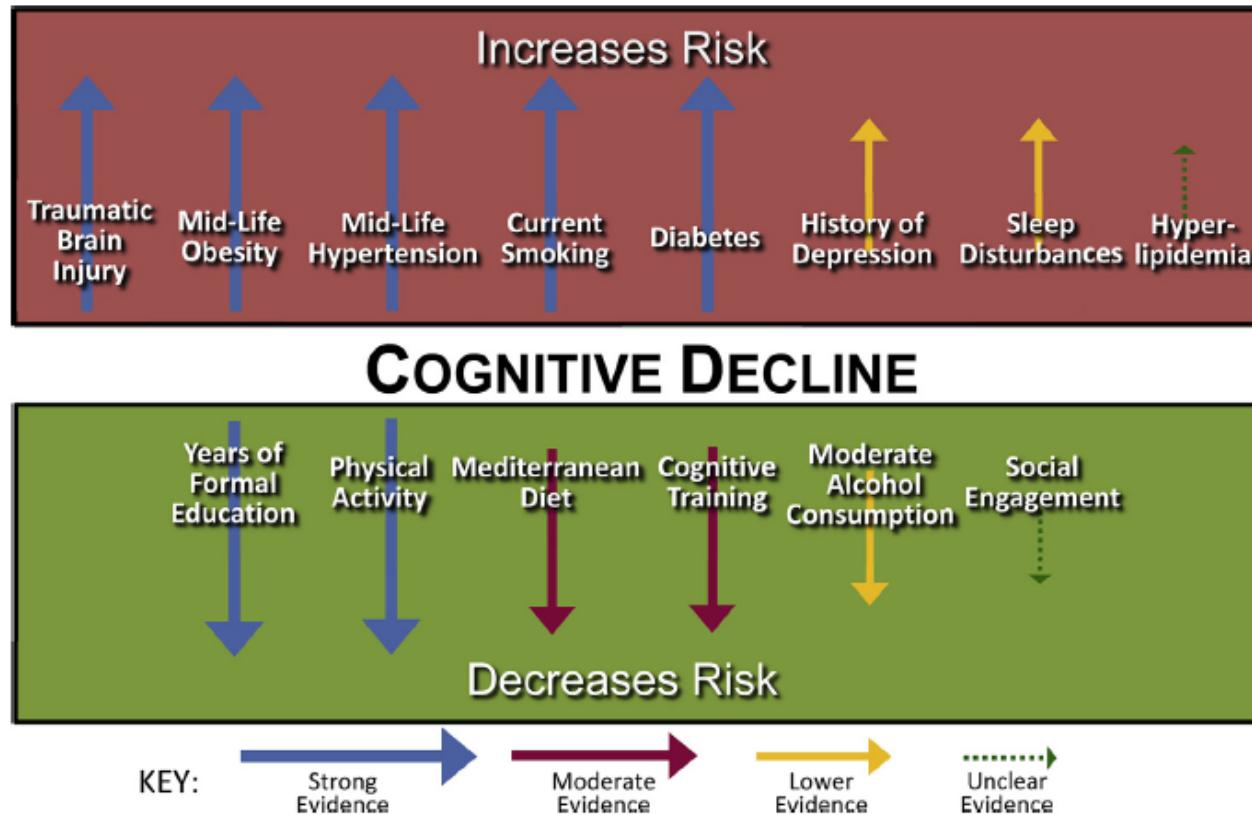


Fig. 1. Strength of evidence on risk factors for cognitive decline.

Factors that Increase/ Decrease Risk of Dementia

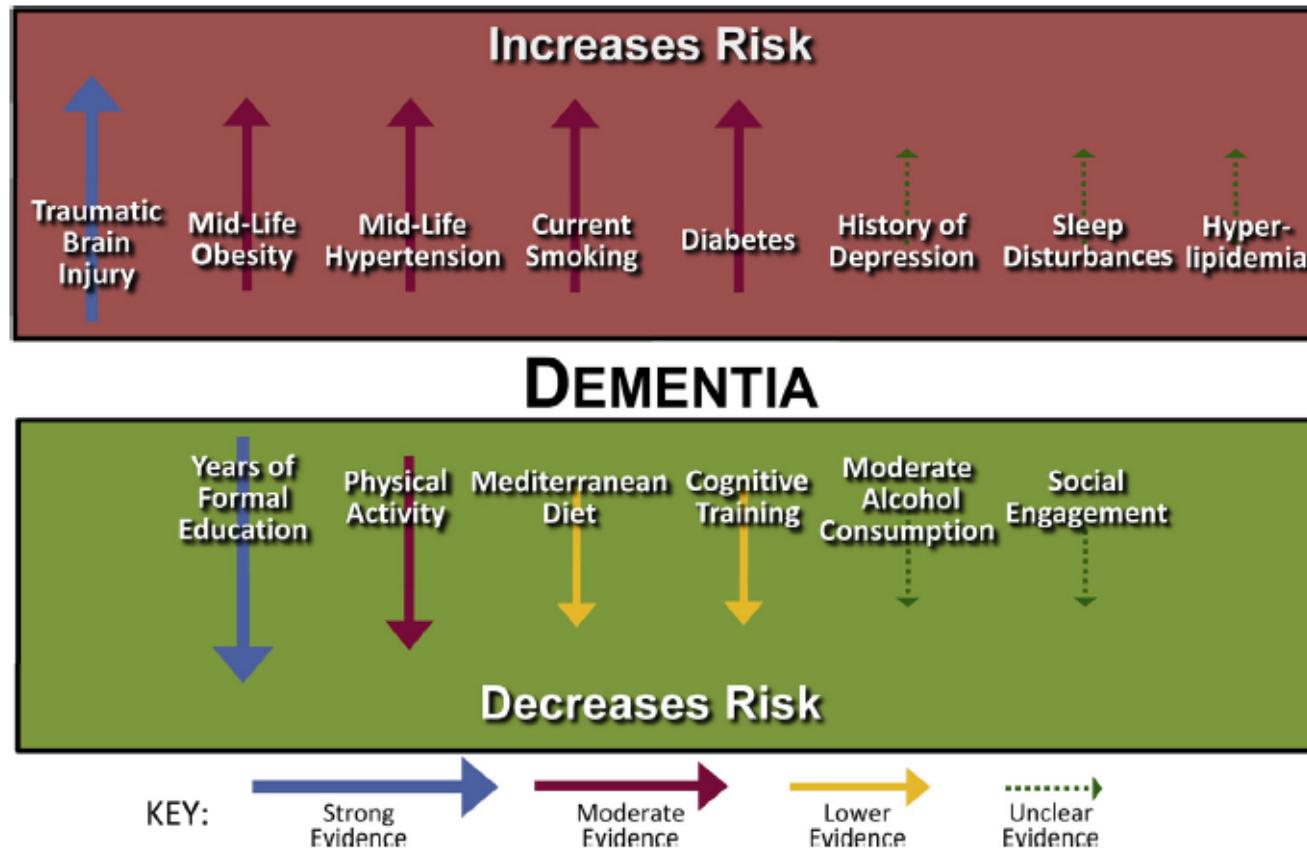


Fig. 2. Strength of evidence on risk factors for dementia.

Statement of Evidence: Modifiable Risk Factors for Cognitive Decline & Dementia

- (1) Regular physical activity and management of cardiovascular risk factors (diabetes, obesity, smoking, and hypertension) have been shown to reduce the risk of cognitive decline and may reduce the risk of dementia;
- (2) Healthy diet and lifelong learning/cognitive training may also reduce the risk of cognitive decline;
- (3) There are still many unanswered questions and significant uncertainty with respect to the relationship between individual risk factors and dementia.

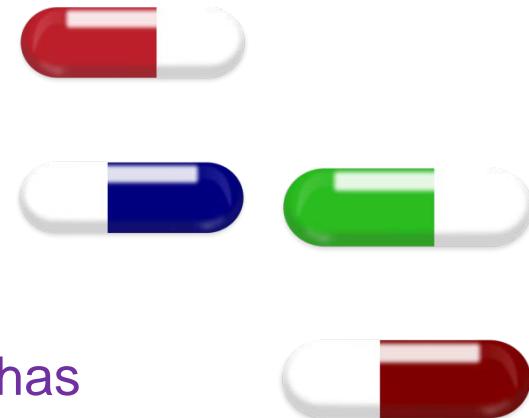


10 Ways to LOVE Your Brain



Combo Therapy Workshop

- Held on Sunday, April 12 in Washington D.C.
 - The face to face workshop was focused on sharing ideas, to discuss issues, challenges and to develop solutions.
 - The Workshop focused on several themes:
 - Rationale
 - Challenges
 - Regulatory Guidance
 - Potential Solutions
 - Recommendations.
- One output of this workshop is a manuscript that has been drafted for publication.
- The Alzheimer's Association Research Roundtable has agreed to form a Workstream on Combo Therapies for AD to act on the Workshop recommendations.



Workshop Attendees

Randy Bateman - Wash.
U.

Bob Brashear - Janssen

Samantha Budd - Biogen

Maria Carrillo - Alz
Assoc

Ron DeMattos - Lilly

Cynthia Duggan - Wash.
U.

Billy Dunn - FDA

Howard Feldman - UBC

Howard Fillit - ADDF

Doug Galasko - UCSD

Jim Hendrix - Alz
Assoc



Writing Team Members That Could Not Attend

Susanne Ostrowitzki - Roche
Reisa Sperling - Harvard

Rusty Katz - Alz Assoc
Sanjay Keswani - BMS
Enchi Liu - Janssen
Simon Lovestone - EPAD
Jose Luis Molinuevo - ICN HC
Laurie Ryan - NIH
Steve Salloway - Brown
Andy Satlin - Eisai
Eric Siemers - Lilly
Anna Shadman - Janssen
Ottavio Vitolo - Pfizer



Perspective

Challenges, solutions, and recommendations for Alzheimer's disease combination therapy

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Abstract

Given the complex neuropathology Alzheimer's disease (AD), combination therapy may be

Global Funder of Alzheimer's & Related Dementia Research

- Currently funding \$80+ million to ~300 active projects in 20 countries



- Most Impactful Non-Profit Funder of Dementia

Thompson Reuters Web of Science, 2015

Alzheimer's Combination Therapy Opportunities (ACTO)

- New grant mechanism, a biomarker-based combination clinical trial testing repurposed drug combinations through Phase II proof of concept.
- Test two repurposed drugs that target multiple biological mechanisms such as:
 - Inflammatory response
 - Protein homeostasis
 - Energy utilization and mitochondria function
 - Lipid/membrane repair
 - Epigenetics
 - Synaptic maintenance/neuroprotection
- Budget: up to \$2,000,000 for 2-3 years



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