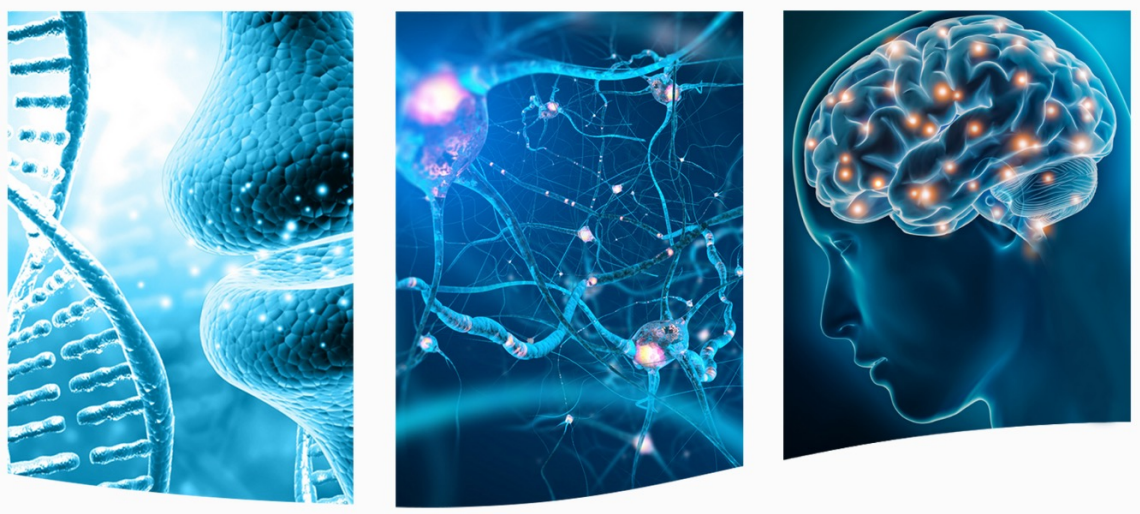


Mood, resilience, and brain health

Aliza Wingo, MD
Associate Professor of Psychiatry

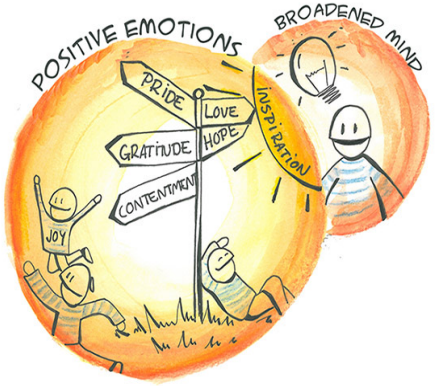
EMORY UNIVERSITY

Ramifications of stress

Stress
Hardship
Trauma

Depression
Anxiety
PTSD

Positive emotions
Life purpose/meaning
Social support & connection



Psychiatric conditions have ramifications on cognitive health

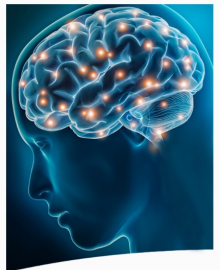
Major depression
Anxiety disorders
PTSD
Alcohol addiction

Dementia

Diniz et al, *British Journal of Psychiatry*, 2013

Richmond-Rakerd et al, *JAMA Psychiatry*, 2022

Psychological resilience enhances cognitive health



Positive emotions
Life purpose, meaning
Social support & connection

Dementia

Boyle et al 2010, *Archive of General Psychiatry*

Wilson et al 2021, *Journal of the International Neuropsychological Society*

ORIGINAL ARTICLE

Effect of a Purpose in Life on Risk of Incident Alzheimer Disease and Mild Cognitive Impairment in Community-Dwelling Older Persons

Patricia A. Boyle, PhD; Aron S. Buchman, MD; Lisa L. Barnes, PhD; David A. Bennett, MD

Journal of the International Neuropsychological Society (2021), 1–6

doi:10.1017/S1355617721001211

Relationship of Purpose in Life to Dementia in Older Black and White Brazilians

Robert S. Wilson[1,2,3,*], Ana W. Capuano[1,2,4], Carolina Sampaio[4], Sue E. Leurgans[1,2], Lisa L. Barnes[1,2,3], Patricia A. Boyle[1,3], Jose M. Farfel[1,4] and David A. Bennett[1,2,4]

[1]Rush Alzheimer's Disease Center, Rush University Medical Center, Chicago, IL, USA
[2]Department of Neurological Sciences, Rush University Medical Center, Chicago, IL, USA
[3]Department of Psychiatry and Behavioral Sciences, Rush University Medical Center, Chicago, IL, USA
[4]Instituto de Assistencia Medica ao Servidor Publico do Estado (IAMSPE), Sao Paulo, Brazil

Resilience and cognition
Emory Healthy Aging Study

Journal of Affective Disorders 263 (2020) 310–317

Contents lists available at ScienceDirect

Journal of Affective Disorders

journal homepage: www.elsevier.com/locate/jad

Research paper

Purpose in life is a robust protective factor of reported cognitive decline among late middle-aged adults: The Emory Healthy Aging Study

Aliza P. Wingo[a,b,1,*], Thomas S. Wingo[c,1], Wen Fan[c], Sharon Bergquist[d], Alvaro Alonso[e], Michele Marcus[e], Allan I. Levey[c,2], James J. Lah[c,2]

Mental health has repercussions on cognitive health

Major depression
Anxiety disorders
PTSD

\+

Dementia

Positive emotions
Life purpose / meaning
Social support & connection

−

Time | Early life | Mid-life | Late-life

Diniz et al, *British Journal of Psychiatry*, 2013

Richmond-Rakerd et al, *JAMA Psychiatry*, 2022

Boyle et al 2010, *Archive of General Psychiatry*

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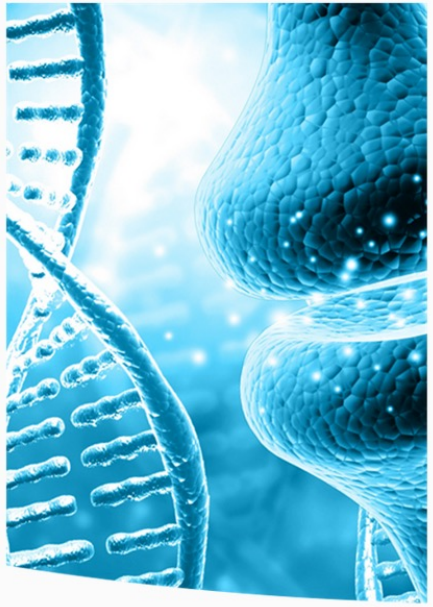
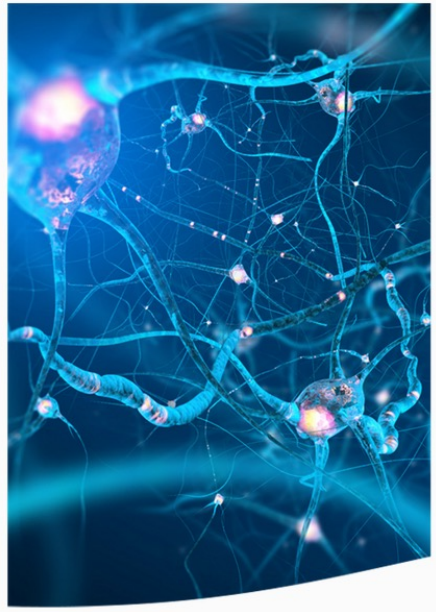
Focusing on understanding the genetic & molecular basis of brain illnesses



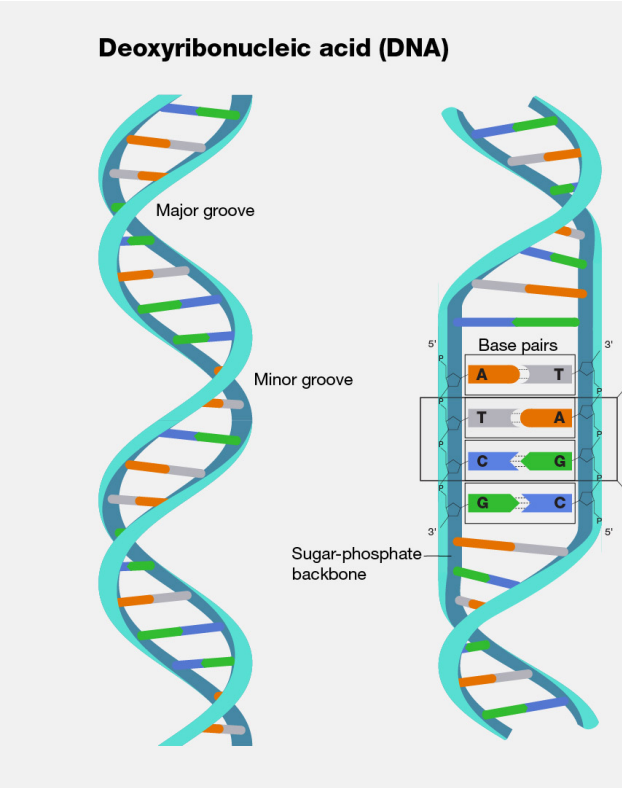


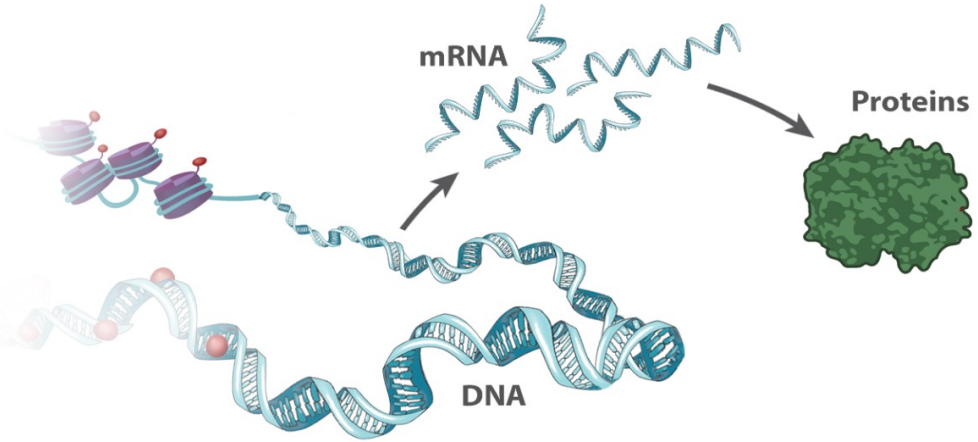
Susceptibility / resilience to stress

Stress
Trauma

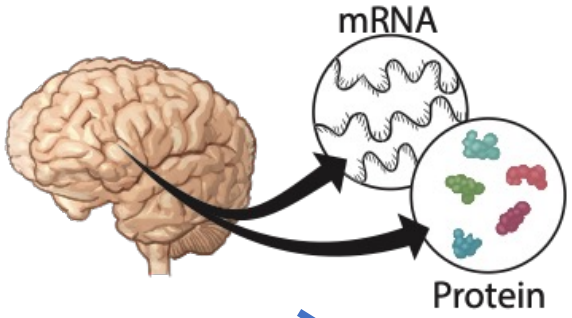
Depression
Anxiety
PTSD

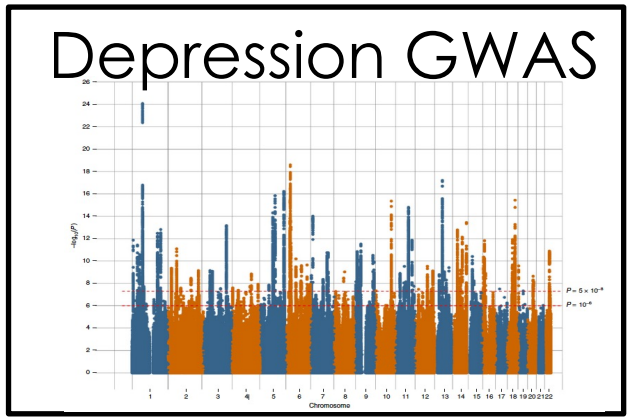
Positive emotions
Life purpose
Social support & connection

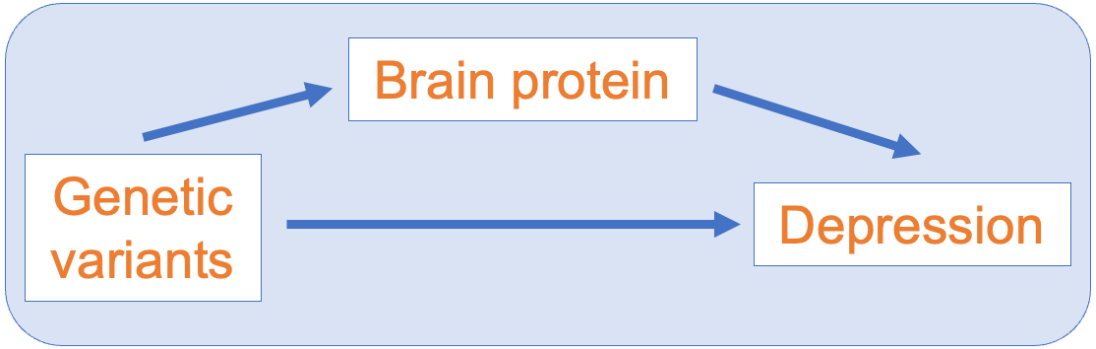




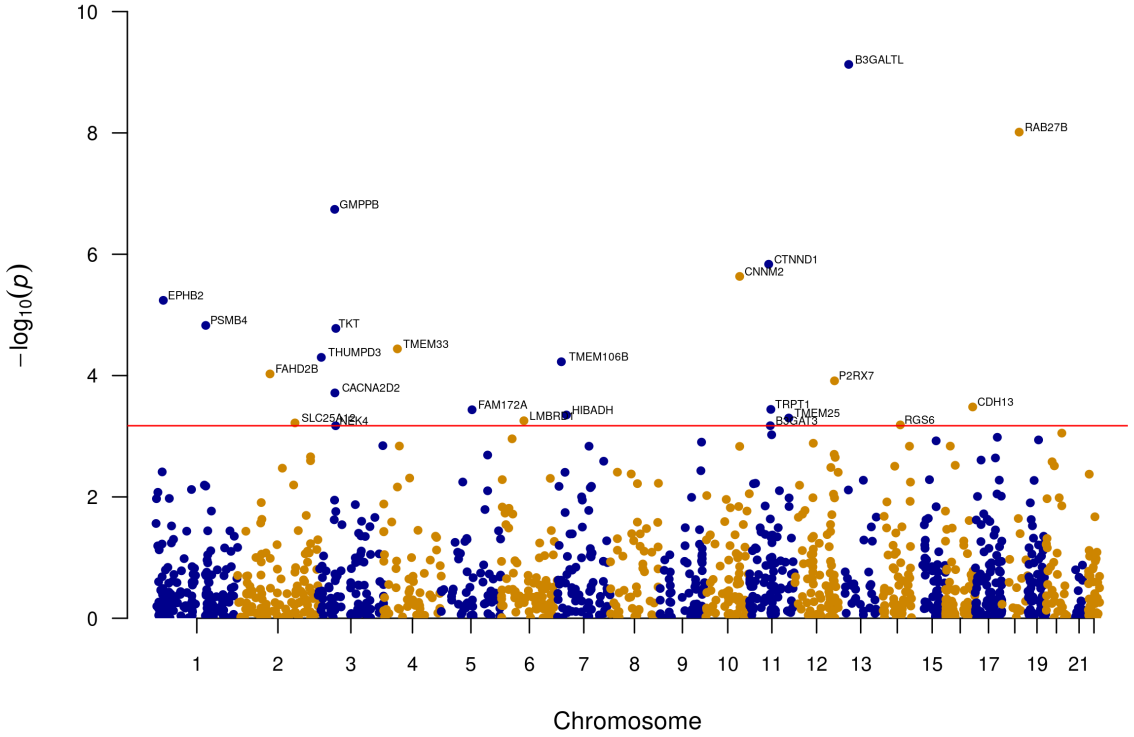
National Human Genome Research Institute


mRNA
Protein


Depression GWAS


Brain protein
Genetic variants
Depression

We identified 98 proteins contributing to depression pathogenesis



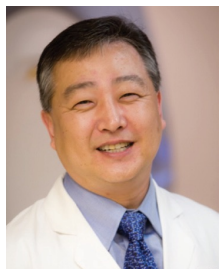
nature neuroscience
2021 Jun;24(6):810-817.
ARTICLES
https://doi.org/10.1038/s41593-020-0643-5

Brain proteome-wide association study implicates novel proteins in depression pathogenesis

Thomas S. Wingo[1,2]✉, Yue Liu[1], Ekaterina S. Gerasimov[1], Jake Gockley[3], Benjamin A. Logsdon[3], Duc M. Duong[4], Eric B. Dammer[4], Adriana Lori[5], Paul J. Kim[5], Kerry J. Ressler[6], Thomas G. Beach[7], Eric M. Reiman[8], Michael P. Epstein[2], Philip L. De Jager[9], James J. Lah[1], David A. Bennett[10], Nicholas T. Seyfried[4], Allan I. Levey[1] and Aliza P. Wingo[5,11]✉









Identified 22 causal proteins contributing to Alzheimer's disease

nature genetics

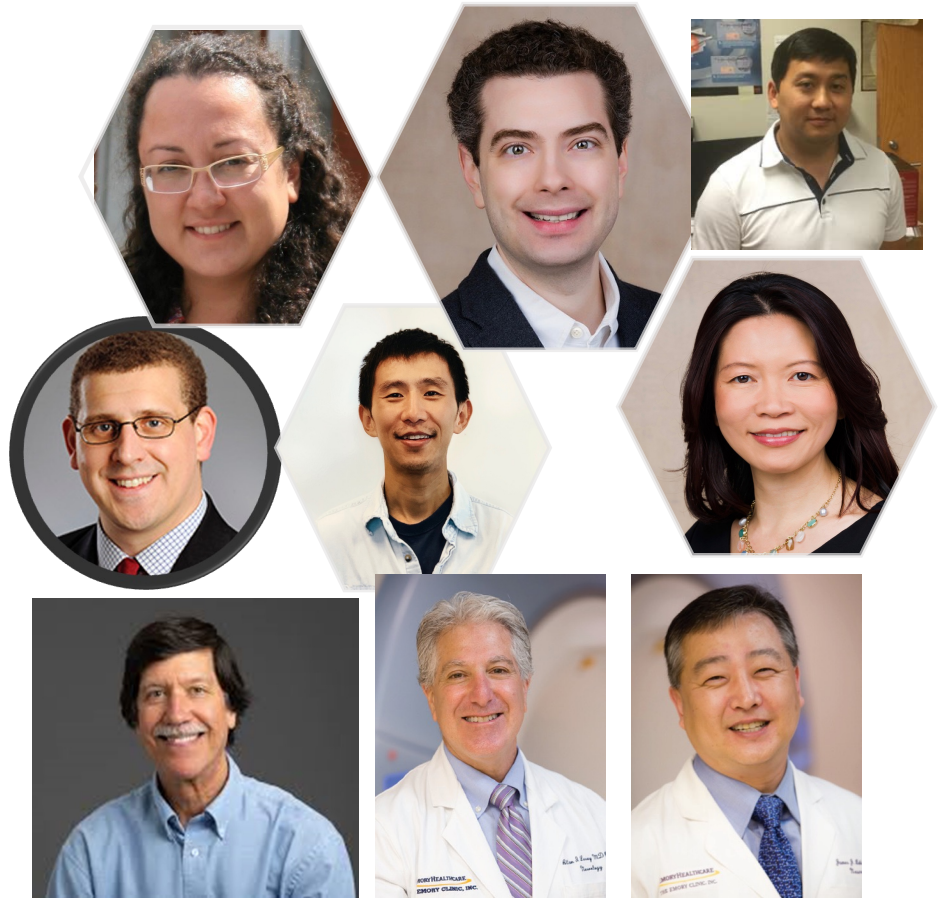
LETTERS

https://doi.org/10.1038/s41588-020-00773-z

Check for updates

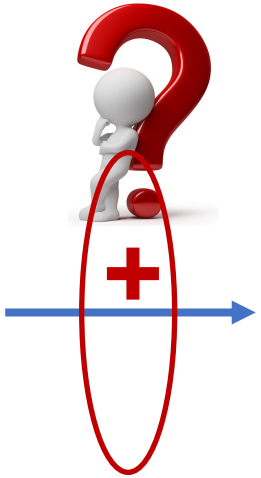
Integrating human brain proteomes with genome-wide association data implicates new proteins in Alzheimer's disease pathogenesis

Aliza P. Wingo[1,2] ✉, Yue Liu[3], Ekaterina S. Gerasimov[3], Jake Gockley[4], Benjamin A. Logsdon[4], Duc M. Duong[5], Eric B. Dammer[5], Chloe Robins[3], Thomas G. Beach[6], Eric M. Reiman[7], Michael P. Epstein[8], Philip L. De Jager[9], James J. Lah[3], David A. Bennett[10], Nicholas T. Seyfried[5], Allan I. Levey[3] and Thomas S. Wingo[3,8] ✉



Psychiatric conditions have ramifications on cognitive health

Major depression
Anxiety disorders
PTSD
Alcohol addiction



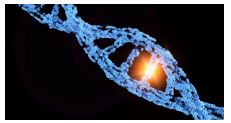
Dementia

Time | Early life | Mid-life | Late-life

Diniz et al, *British Journal of Psychiatry*, 2013

Richmond-Rakerd et al, *JAMA Psychiatry*, 2022

Shared genetic diathesis between depression and Alzheimer's dementia



nature communications

Article

https://doi.org/10.1038/s41467-022-31873-5

Shared mechanisms across the major psychiatric and neurodegenerative diseases

Received: 5 October 2021

Accepted: 7 July 2022

Published online: 26 July 2022

Check for updates

Thomas S. Wingo[1,2,3], Yue Liu[2], Ekaterina S. Gerasimov[2], Selina M. Vattathil[2], Meghan E. Wynne[4], Jiaqi Liu[2], Adriana Lori[5], Victor Faundez[4], David A. Bennett[6], Nicholas T. Seyfried[1,7], Allan I. Levey[1,2] & Aliza P. Wingo[5,8]

Several common psychiatric and neurodegenerative diseases share epide-

ARTICLE IN PRESS

Biological Psychiatry

Archival Report

Genetic Evidence Supporting a Causal Role of Depression in Alzheimer's Disease

Nadia V. Harerimana, Yue Liu, Ekaterina S. Gerasimov, Duc Duong, Thomas G. Beach, Eric M. Reiman, Julie A. Schneider, Patricia Boyle, Adriana Lori, David A. Bennett, James J. Lah, Allan I. Levey, Nicholas T. Seyfried, Thomas S. Wingo, and Aliza P. Wingo

ABSTRACT

BACKGROUND: Depression has been associated with a higher risk of Alzheimer's disease (AD) in several prospective studies; however, mechanisms underlying this association remain unclear.

Received: 15 February 2022 | Revised: 4 May 2022 | Accepted: 18 May 2022

DOI: 10.1002/alz.12716

Alzheimer's & Dementia®
THE JOURNAL OF THE ALZHEIMER'S ASSOCIATION

FEATURED ARTICLE

Alzheimer's disease genetic burden is associated with mid-life depression among persons with normal cognition

Thomas S. Wingo[1,2,3] | Ekaterina S. Gerasimov[2] | Se Min Canon[2] | James J. Lah[1,2] | Allan I. Levey[1,2] | Aliza P. Wingo[4,5]

[1]Goizueta Alzheimer's Disease Center, Emory University School of Medicine, Atlanta, Georgia, USA

Abstract

Introduction: Despite an established link between depression and higher Alzheimer's

Treatment of depression can offset the increased risk for dementia!

Major depression
Anxiety disorders
PTSD
Alcohol addiction

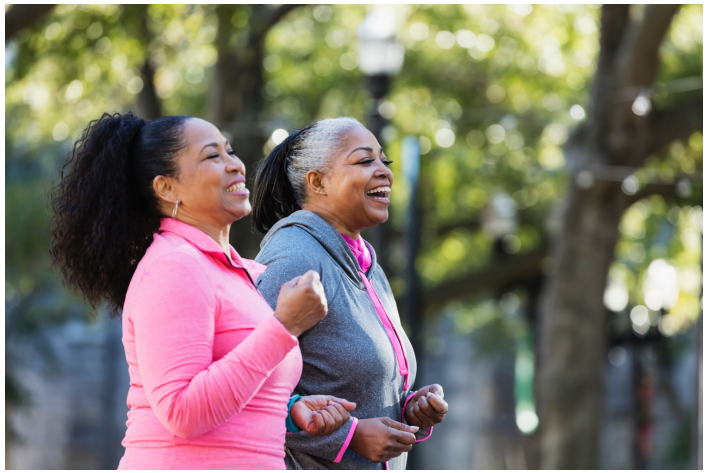
Dementia

Diniz et al, *British Journal of Psychiatry*, 2013

Richmond-Rakerd et al, *JAMA Psychiatry*, 2022

Treatment of depression

Activities to enhance resilience and brain health



Thank you for your attention