

Cognitive Resilience in Alzheimer's Disease: Concepts, Statistical Tools and Policy Shaping

Friday, July 25, 2025 | 1:00 pm - 5:00 PM
Westin Harbour Castle- Pier 2 — Toronto, Canada
All times are in Eastern Standard Time
In-person attendance only

Overview

The workshop will provide guidance on state-of-the-art approaches to investigating, quantifying, and promoting resilience against Alzheimer's disease in older adults with emphasis on effectively communicating findings to policymakers. The specific aims are to teach and facilitate discussions on: 1) Current conceptualizations of resilience and statistical methods to quantify resilience, with a focus on addressing sex/gender and race/ethnic differences and recognizing the limitations of the presented approaches, 2) Personalized resilience approaches using AI and population-based strategies to promote resilience from a OneHealth perspective, 3) Effective strategies to disseminate information to policy makers. Particular emphasis will be placed on hands-on learning experiences.

Organizing Committee

- Eider M. Arenaza-Urquijo, Ph.D.
- Michael Ewers, Ph.D.
- Hamid R Sohrabi, Ph.D.
- Harriet Demnitz-King, Ph.D.
- Maria C Mora Pinzon, M.D., M.S.
- Maude Wagner, Ph.D.
- Brandon E Gavett, Ph.D.
- Ian Cleland, Ph.D.

Target Audience

This ISTAART immersive workshop is designed for individuals at the beginner and intermediate levels in Care & Support, Clinical Practice, and Research.

Learning Objectives

1. Practice statistical models to test the concepts of reserve and resilience
2. Identify AI-powered smart solutions to enhance resilience in patients in different countries

3. Design a policy brief to disseminate the results of their research

Registration

Educational workshops are offered for in-person attendance only. Workshops require a separate registration fee in addition to AAIC full conference registration, or they may be purchased as stand-alone events. Visit alz.org/AAIC.

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Time	Session Details	Speakers and Moderator
12:00 - 1:00 pm	Lunch (Westin Metropolitan Ballroom)	
1:00 - 1:30 pm	Welcome Presentation of core concepts of resilience and pertinent statistical designs to test those concepts Interactive group discussions will focus on distinguishing types of resilience, exploring limitations of different research approaches, gather insights from attendees and addressing critical topics (sex,gender, race, ethnicity)	Michael Ewers Eider Arenaza-Urquijo Hamid Sohrabi
1:30 - 3:15 pm	Hands-on teaching of statistical approaches using R: Estimating cognitive resilience based on cross-sectional data (residual approach; latent variable approach) or longitudinal data (effect modification on cognitive decline; cognitive slopes/levels given pathology; latent class membership for cognitive patterns) Datasets and R code will be provided.	Maude Wagner Brandon Gavett
3:15 - 3:30 pm	Break and refreshments	

3:30 - 4:15 pm	<p>Impulse talks on Artificial intelligence and Machine Learning Presentation on how to leverage wearable sensors, smart-home technology and speech biomarkers for research, as well as enhancing independent living and resilience abilities in patients with dementia.</p> <p>Group discussion will focus on real world applications and critical issues including privacy and data protection of AI powered support.</p>	Jiayu Zhou
4:15 - 5:00 pm	<p>Hands-on activity: Effective Approaches to promote your agenda and inform Decision-Makers"</p> <p>Explore effective strategies to disseminate information and engage decision- makers: policy-briefs, practice your elevator-pitch, use message mapping tools, create your social media post, plan your media engagement plan. Participants will learn the essential components of a communication strategy, focusing on identifying the target audience, defining the key issues, and outlining effective strategies for communication.</p>	Walter Dawson Anna Shelander