

Clin-STAR Annual Meeting

Loews Coronado Bay Resort, San Diego,
California

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**The Science of Resilience:
Innovative Approaches Across Disciplines**

Cognitive Resilience

Carol A. Barnes, Ph.D.

Regents Professor, Psychology, Neurology, and Neuroscience
Evelyn F. McKnight Chair for Learning and Memory in Aging
Director, Evelyn F. McKnight Brain Institute
University of Arizona, Tucson



Initiatives Investigating Cognitive Resilience

- the **Collaboratory on Research Definitions for Cognitive Reserve and Resilience** - an NIA-funded effort to develop consensus on definitions for these terms
- the Northwestern University **SuperAging Project** – now an NIA-supported consortium with 5 other sites
- the **Precision Aging Network** – NIA-supported based at the University of Arizona to study normative cognitive aging across the lifespan

Colaboratory on Research Definitions for Reserve and Resilience in Cognitive Aging and Dementia

Yaakov Stern is the PI on this project
the colaboratory framework considered
“**Resilience**” to be a general term subsuming
concepts such as:

- Cognitive Reserve
- Brain Maintenance
- Brain Reserve

Stern, Albert, Barnes, Cabeza, Pascual-Leone, Rapp (2022) *Neurobiology of Aging*, A Framework for Concepts of Reserve and Resilience in Aging, in press.

<https://reserveandresilience.com>

The Northwestern University SuperAging Project – begun in 2008

Emily Rogalski is PI on a new SuperAging Project: **Study to Uncover Pathways to Exceptional Cognitive Resilience in Aging** – collaboration with 5 additional sites

SuperAger Definition:

- a person at least **80 years or older**
- **episodic memory performance** on the Rey Auditory Verbal Learning Test similar to individuals in their 50s or 60s
- **normal cognition** for their age in other domains

The Northwestern University SuperAging Project



Example of story telling recall across age (cross-sectional)

Northwestern SuperAgers: greater brain volume in some regions
low proportion APOE4 carriers
enriched single nucleotide polymorphism in MAP2K3 gene

The Precision Aging Network

Carol A. Barnes, PI

- based at the University of Arizona
- other collaborators in Arizona, and in Georgia, Florida, Maryland, and Texas





Precision Aging[®] Network

Closing the Gap Between Cognitive Healthspan and Human Lifespan



MindCrowd.
A research project by TGen

Go to: [MindCrowd.org](https://www.MindCrowd.org)

Cognitive Resilience

Resilience

Definitions of cognitive reserve
brain maintenance
brain reserve

SuperAgers

study based at Northwestern

Precision Aging Network

study base at University of Arizona