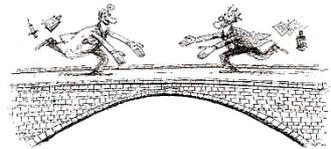




National Institute on Aging



JANUARY 13-14, 2014

KECK CENTER - 500 5TH STREET, N.W.

WASHINGTON, DC

HEARING LOSS AND HEALTHY AGING: AN IOM-NRC WORKSHOP

A Prelude on the Aging Phenotype

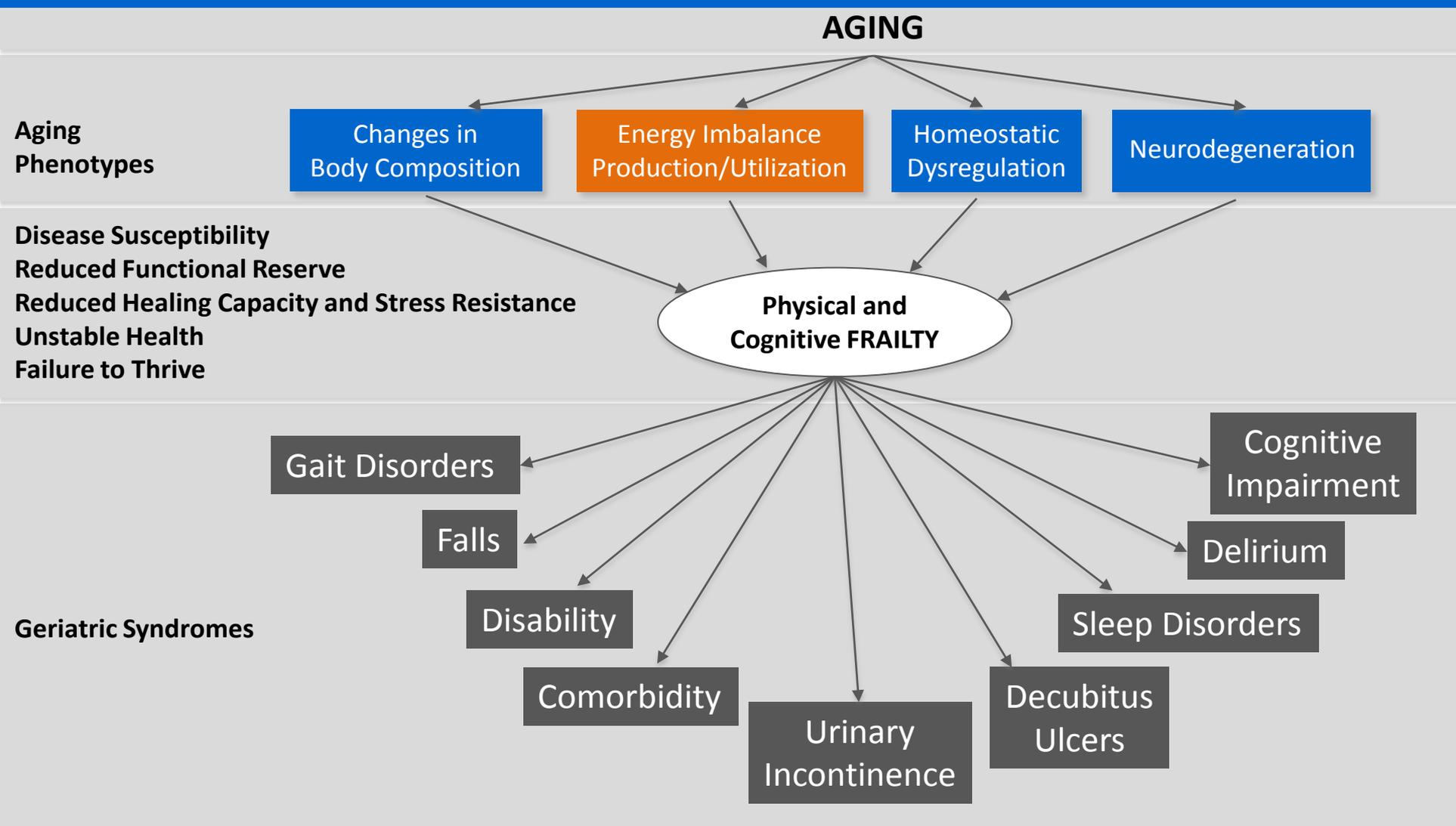
Luigi Ferrucci, MD, PhD

NIA Scientific Director

Aging and Trajectory of Function

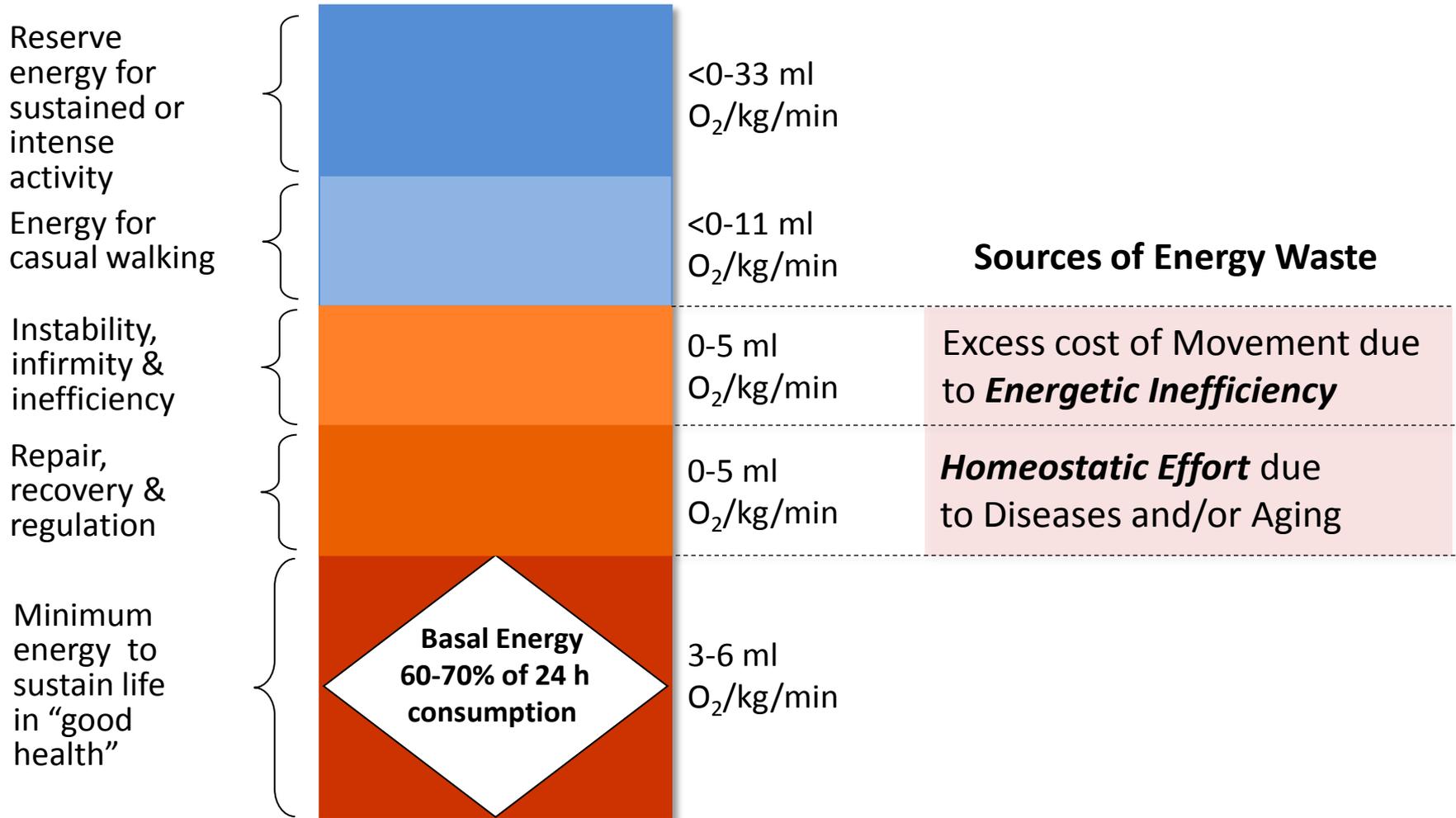


Aging Phenotypes and the Genesis of Geriatric Syndromes

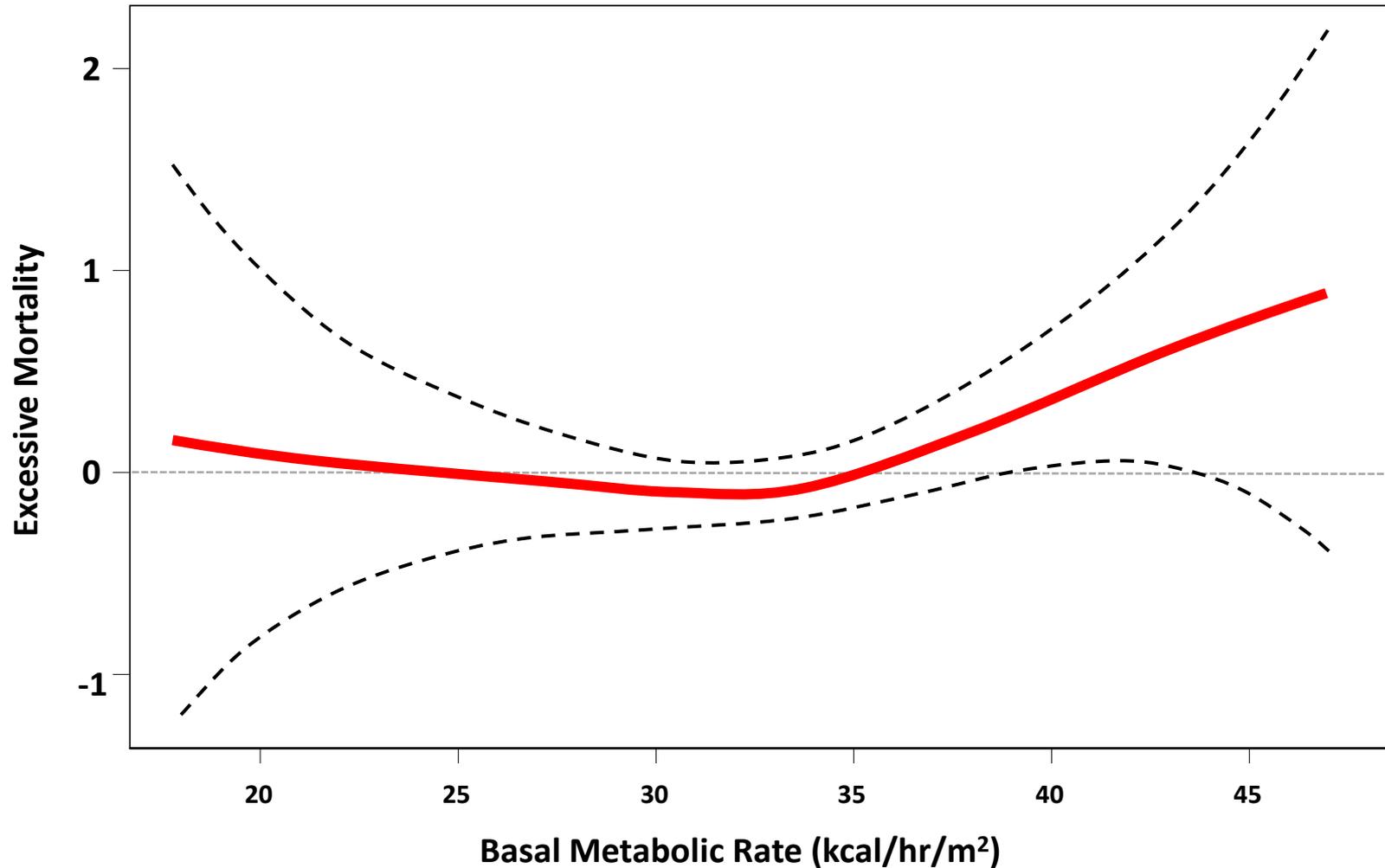


The Domains of Energy

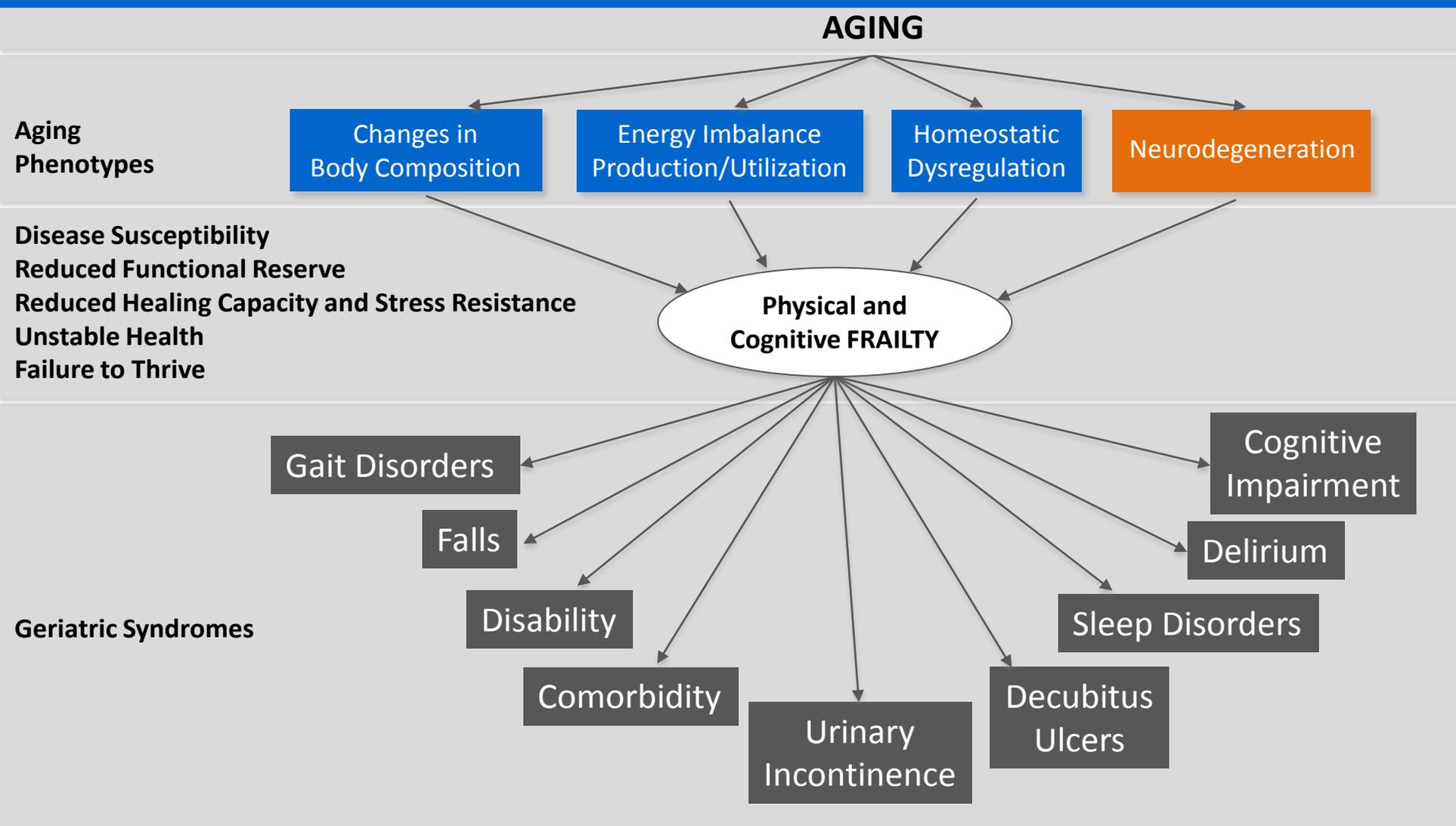
Fitness, Resting Metabolic Rate, and Efficiency



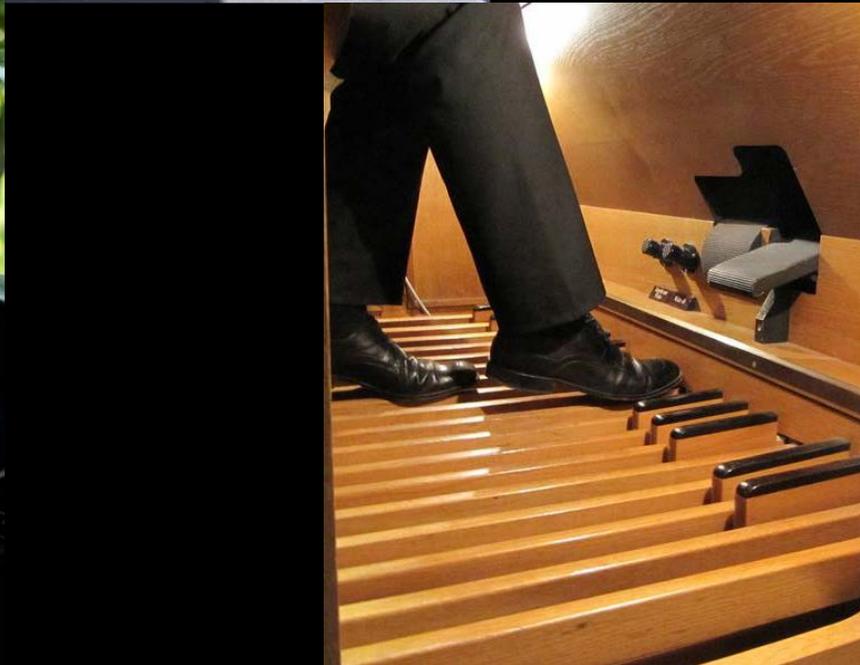
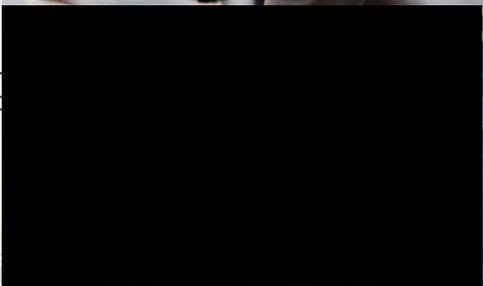
High Basal Metabolic Rate Is a Risk Factor for Mortality: The Baltimore Longitudinal Study of Aging



Aging Phenotypes and the Genesis of Geriatric Syndromes

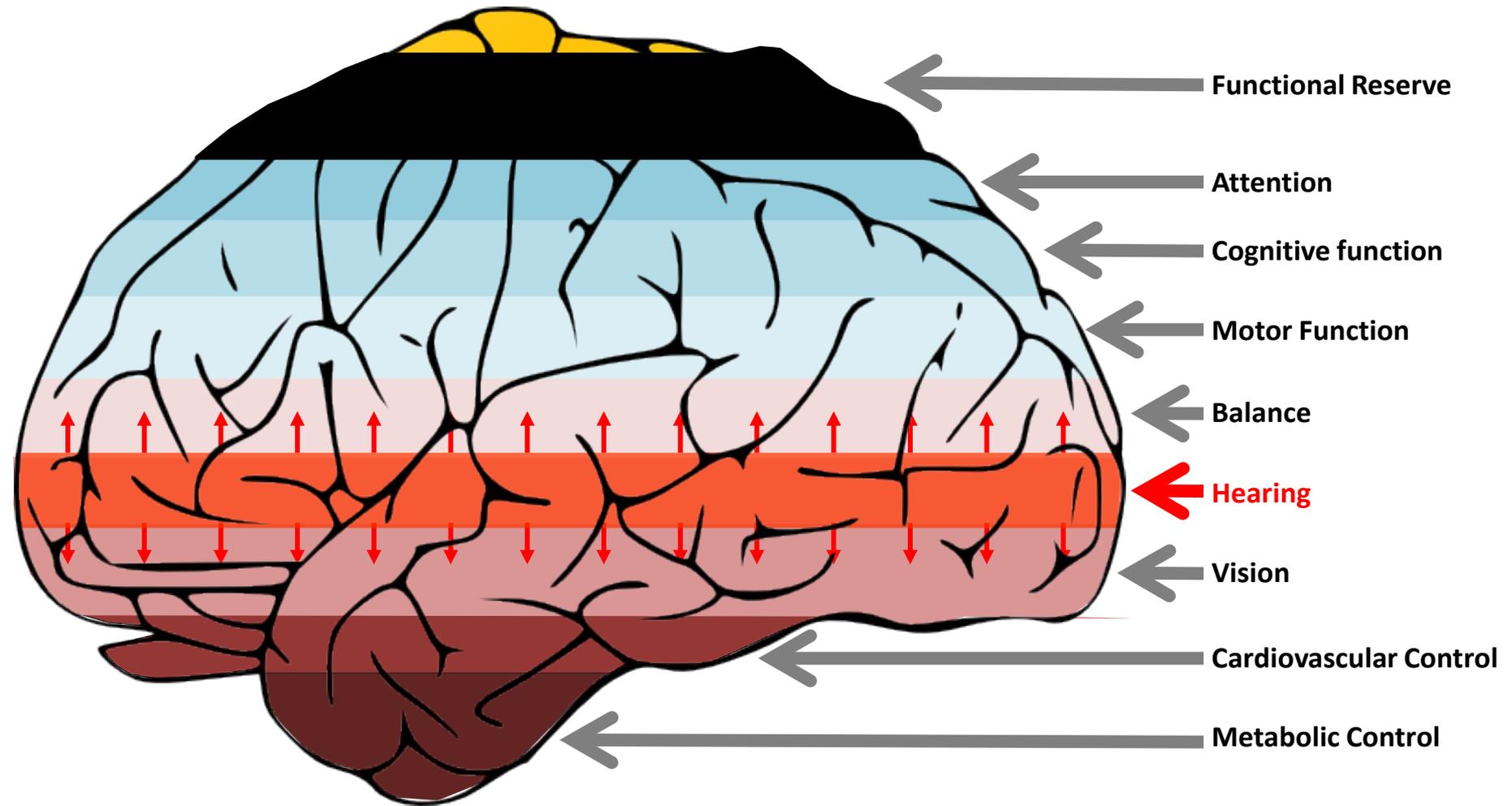


PROCEDURE FOR SIMULTANEOUSLY
WALKING & CHEWING GUM
Sheet 1 of 4 : No model Patent No. 2,876,310,746,521



The Domains of Brain Resources

Total Capacity, Resource Allocation, Plasticity, Functional Reserve



- Dual Task creates competition for brain resources
- In young and healthy individuals, additional resources can be pulled from reserve (plasticity)
- In older individuals functional resources and plasticity are constrained, leading to dysfunction

Conclusion

- Older age is often associated with a state of brain susceptibility, reduced plasticity and depauperated functional reserve.
- Additional requests to the brain compete with finite resources, may have functional consequences and increase fragility.
- Because of the reduced plasticity, effective adaptation is less likely to occur.
- Hearing loss may have a negative impact on unexpected functional domains.