

Healthy aging as a dynamics in the complex neurobehavioral system

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As life expectancy increases, the number of older people increases continuously. This demographic revolution is an opportunity for researchers to better understand healthy aging and, in particular, how to mitigate, delay or compensate for the effects of aging on the neurobehavioral system. During the last ten years, within the Institute of Movement Science, we have developed several projects related to healthy aging, based on theories of complexity and nonlinear dynamic systems. Currently, we are launching a new project - the Active Aging Chair 2.0 - which focuses on the prevention of aging through physical activity and new technologies. During this reading, I will present these different projects through published works and studies in progress.

Recommended reading:

Sleimen-Malkoun, R., Temprado, J.J. & Hong, L. (2014). Aging induced loss of complexity and dedifferentiation: consequences for coordination dynamics within and between brain, muscular and behavioral levels. *Frontiers in Aging Neuroscience*, vol. 6, article 140.