

Brain and Cognition in Aging

June, 10th 2021

16:00 – 18:00 Italy time (ET 10-12 am)

16:00 – 16:10 Prof. **Erika Borella** (University of Padua)
Welcome and opening remarks

16:10 – 17:00 Prof. **Lars Nyberg** (Umeå University)
Memory aging and brain maintenance

17:00 – 17:50 Prof. **Michael Rapp** (Universität Potsdam)
Motor and cognitive plasticity in old age

17:50 – 18:00 Prof. **Matthias Kliegel** (University of Geneva)
Closing remarks

ZOOM LINK: <https://unipd.zoom.us/j/83891812111>

SHORT ABSTRACTS

Nyberg's talk

The aging brain undergoes many changes that can impact memory and cognition. Intriguingly, some older adults display brain maintenance, or lack of senescent brain changes and age-related brain pathology. This presentation is focused on structural and functional maintenance of the hippocampus complex, as hippocampal maintenance is a key determinant of well-preserved episodic-memory functioning in old age. Several potential neural and non-neural mechanisms promoting hippocampal maintenance will be considered, and evidence will be reviewed that suggest that correlated genetic and environmental factors influence the operation of maintenance mechanisms, partly through lifestyle choices.

Rapp's talk

Age-related decline in working memory and sensorimotor control has been well documented. From a systems perspective, little is known about the specific mechanisms underlying interference between cognitive function and motor control and associated compensatory mechanisms in young and old adults. We present a series of studies investigating working memory and motor control plasticity in young and older adults using both single and dual-task paradigms in behavioral settings and with functional magnetic resonance imaging. Data provide further evidence for potential underlying mechanisms of compensatory processes in aging.

Organizers:

Erika Borella, Patrizia Bisiacchi, Giorgia Cona – Department of General Psychology, University of Padova