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Presentation:

The Dancing Brain: From Young Experts to Older Amateurs

Description: Dance participation and proficiency involves cognitive, social, and physical activity, all of which require neural processing and control. I will present data from two neuroimaging studies on dance. The first study aimed at identifying brain structural, functional, and cognitive correlates of professional dance training in young adults (Burzynska et al., 2015). The second study aimed at understanding whether 6-month exercise and dance training in older adults may elicit white matter plasticity (Burzynska et al., 2017, Mendez et al., 2021).

Bio:

Aga Burzynska is Assistant Professor at Colorado State University in the areas of Human Development and Family Studies as well as Molecular, Cellular and Integrative Neurosciences, and Director of the BRAiN (Brain Aging: Intervention and Neuroimaging) Laboratory.

Burzynska holds degrees in Neuroscience and Psychology from International Max Planck Research Schools in Gottingen and Berlin, Germany. She studies brain aging using Magnetic Resonance Imaging, with a focus on the mechanisms of decline and plasticity in the white matter. She investigates the potential of exercise interventions, including dance, for maintaining or improving brain health to prevent dementia. She has also studied the structural and functional brain correlates of professional dance training in young adults.

Overall, her work seeks to identify modifiable risk and protective factors for brain aging, which include physical activity, sedentariness, and different occupational exposures. Her current work is funded by NIH/NIA and the Alzheimer's Association.