Musical pleasure and its influence on human memory

Laura Ferreri, Department of Brain and Behavioural Sciences, University of Pavia, IT

Music represents one of the most rewarding stimuli throughout our lives. Recent research has shown that musical pleasurable responses rely on the activity of the reward mesolimbic system, with a main role played by dopaminergic transmission in regulating music hedonic and motivational responses.

Music, thanks to its strong evocative power, is also considered a powerful mnemonic tool for both normal and clinical populations. However, the mechanisms underpinning the music-driven benefits on memory remain unclear. Crucially, the dopaminergic system transmission also plays a role in memory formation: neuroscience research has shown that stimuli triggering dopamine release (such as money) could result in long-term memory improvements via the mesolimbic-hippocampal loop.

Through behavioural and neural evidence obtained in online, laboratory and real-life studies, this talk will explore the hypothesis that dopamine-dependent music pleasurable responses can enhance memory performance, thus opening potential new avenues for pedagogical and clinical applications.