



# NEUROSCIENCE CONFERENCE SERIES

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## **"Experience, gender and cultural modulation of the risk of Alzheimer's disease"**

A larger hippocampus has been associated with healthy cognition in normal aging and with a reduced risk of numerous neurological and psychiatric disorders such as Alzheimer's disease, Schizophrenia, Post-Traumatic Stress disorder and Depression. The hippocampus is implicated in spatial memory strategies used when finding one's way in the environment, i.e. it is allocentric and involves remembering the relationship between landmarks. On the other hand, another strategy dependent on the caudate nucleus can also be used, i.e. the response strategy, which relies on making a series of stimulus-response associations (e.g. right and left turns from given positions). Measures of spontaneous navigation strategies from ages 8 to 80 yrs have shown a decrease in spatial memory strategies across the life span, along with a reduction in activity and grey matter in the hippocampus in favor of caudate nucleus dependent response strategies. Caudate nucleus dependent strategies are modulated by reward seeking behaviors such as smoking and playing action video games, stress, cultural differences, gender and age...

**Date: Wednesday, 12 December 2018**

**Hour: 15:30**

**Sala de Graus, Faculty of Psychology, Mundet Campus**



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