

DSV 2017 Seminars



UNIVERSITÀ
DEGLI STUDI DI TRIESTE

DIPARTIMENTO DI
SCIENZE DELLA VITA

PhD Program in Molecular Biomedicine and JUMBO PhD

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Seminar Room, Building Q – Via Giorgieri, 5 Trieste

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Neurobiology of memory load capacity: from pathophysiology to rescue strategies

Memory load capacity refers to the number of elements that can be remembered for a short time interval. Using a novel behavioral task for rodents, with high construct, phase and predictive validity, we have previously shown that memory capacity relies on the activation of post-translational mechanisms in the dorsal hippocampus.

Reduced memory capacity is a core cognitive symptom of schizophrenia, and a clinically relevant mild cognitive impairment that is prodromal to Alzheimer' disease. We have obtained pre-clinical data in the rodent model that identify novel cellular disease mechanisms underlying memory capacity impairment that are relevant to ageing and to Alzheimer disease. The deficits measured in rodents can be rescued by behavioral and pharmacological treatments. Our study also points out some important sex-regulated differences in memory capacity that provide insights into the higher risk of women in developing dementia.

