

IGSN - COLLOQUIUM

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Memory as a Therapeutic Target

Memory reconsolidation is the process in which reactivated long-term memory (LTM) becomes transiently sensitive to amnesic agents that are effective at consolidation. The phenomenon was first described more than 50 year ago but did not fit the dominant paradigm that posited that consolidation takes place only once per LTM item. Research on reconsolidation was revitalized only more than a decade ago with the demonstration of reconsolidation in a well-defined behavioral protocol (auditory fear conditioning in the rat) subserved by an identified brain circuit (basolateral amygdala). Since then, reconsolidation has been shown in many studies over a range of species, tasks, and amnesic agents, and cellular and molecular correlates of reconsolidation have also been identified.

In this lecture, I will first define the evidence on which reconsolidation is based, and proceed to discuss some of the conceptual issues facing the field in determining when reconsolidation does and does not occur. I will then refer to the potential clinical implications of reconsolidation. Whereas consolidation and reconsolidation are considered dynamic processes requiring protein synthesis, memory retrieval has long been considered a passive readout of previously established plasticity. Lastly I will discuss a recent study showing that retrieval of LTM is an extremely nuanced active biological phenomenon.

Hosts:

MAGDALENA SAUVAGE

Mercator Research Group "*Structure of Memory*", Faculty of Medicine, Ruhr-University Bochum

OLIVER T. WOLF

Department of Cognitive Psychology, Faculty of Psychology, Ruhr-University Bochum

Guests are welcome.

