

## **Memory Consolidation and EMDR**

One core underlying feature of PTSD, and indeed some other disorders, is an abnormally strong and persistent emotionally-salient memory that influences everyday behaviour. Therefore, treatment strategies that diminish, erase or re-value these memories are likely to have clinically-beneficial outcomes. My research focusses on the basic mechanisms of memories, including fear and traumatic memories, in rodent experimental models. Using such models, we can progress our understanding of the formation, stabilisation and persistence of memory. This understanding forms the basis of translation to human experimental and clinical studies.

In recent years there has been a growing focus on the phenomenon of memory destabilisation-reconsolidation. Memories appear to destabilise sometimes upon their retrieval, necessitating a process of reconsolidation. Interference with, or manipulation of, that reconsolidation process can reduce subsequent memory expression. The capacity of targeting memory reconsolidation to reduce fear and anxiety has been demonstrated in rodent models, human experimental fear studies, human experimental trauma paradigms and in PTSD patients. Some have even speculated that interference with memory reconsolidation is one mechanism by which EMDR causes its clinical benefits. However, further studies in rodents suggest that there are important issues that must be considered when attempting to apply reconsolidation-based therapy to human patients. These considerations might be relevant to EMDR practice more widely.