Asynchronous ripple oscillations between left and right hippocampi during slow-wave sleep

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 Spatial memory, among many other brain processes, shows hemispheric lateralization. Most of the published evidence suggests that the right hippocampus plays a leading role in the manipulation of spatial information. Concurrently in the hippocampus, memory consolidation during sleep periods is one of the key steps in the formation of newly acquired spatial memory traces. One of the most characteristic oscillatory patterns in the hippocampus are sharp-wave ripple (SWR) complexes. Within this complex, fast-field oscillations or ripples have been demonstrated to be instrumental in the memory consolidation process. Since these ripples are relevant for the consolidation of memory traces associated with spatial navigation, and this proc