



FENS Forum 2008

For posters, morning sessions: 9:30-13:30; afternoon sessions 13:30-17:30.
Authors are expected to be in attendance at their posters at the time indicated.
For other sessions, time indicates the beginning and end of the sessions.

First author Schwartz, Sophie (speaker)

Symposium S21-2. Mon 14/07/2008, 09:45 - 11:15 (Presentation: 10:10) - Room Mont-Blanc
Session 101 - Sleep, off-line reactivation and memory consolidation.
Abstract n° 101.2
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Title Sleep affects learning-related changes in regional brain activity in adult humans.

Text Sleep influences memory consolidation. To fulfill a memory function, sleep must have lasting consequences on neuronal processing. I will present neuroimaging data demonstrating that a period of sleep affects long-term functional changes in the adult human visual system. Results from these studies show that sleep-related modulation of brain response can be highly local, because it occurs primarily at cortical sites involved in the extraction of task-relevant features (e. g., V1 for visual texture discrimination, face-responsive fusiform cortex for face processing). The data also suggest that an interplay between cortical and subcortical regions such as the amygdala or the hippocampus may contribute to distinct stages of sleep-related memory consolidation processes. Taken together, these neuroimaging findings support a functional role of sleep in strengthening learning-related changes of regional brain activity in humans, consistent with off-line neuronal reorganization during sleep.