



Talks by rising stars of neuroscience

Mechanisms of cortical communication during decision-making

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Regulation of information flow in the brain is critical for many forms of behavior. In the process of sensory based decision-making, decisions about future actions are held in memory until enacted, making them potentially vulnerable to distracting sensory input. Therefore, gating of information flow from sensory to motor areas could protect memory from interference during decision-making, but the underlying network mechanisms are not understood. I will present our recent experimental and modeling work describing how information flow from the sensory cortex can be gated by state-dependent frontal cortex dynamics during decision-making in mice. Our results show that communication between brain regions can be regulated via attractor dynamics, which control the degree of commitment to an action, and reveal a novel mechanism of gating of neural information.

Event link:

<https://www.crowdcast.io/e/wwneurise>