Memory for personal experiences (episodic memory) is thought to rely on the ability to mentally travel back in time to consciously re-experience past events. Based on a lack of evidence of mental time traveling in non-humans, it has been proposed that this ability is unique to humans. This talk will present an alternative viewpoint. We propose that many mammals store and recall memories of personal experiences, and that cortical networks mediate this ability. Experimental data from dolphins, rats, and a chimpanzee demonstrate that non-humans can report on actions they have recently performed. Dolphins, in particular, can be trained to repeat prior actions on command, including self-selected actions and actions performed with particular objects.

The recent discovery of "mirror neurons" in primate cortex, which fire both when a monkey performs an action, and when the monkey observes an action, provides important clues about how past actions are represented in memory.

Refreshments will be served.
Everybody welcome!