Institut de Neurociències
UNIVERSITAT DE BARCELONA

EXCELENCIA MARÍA DE MAEZTU

NEUROSCIENCE
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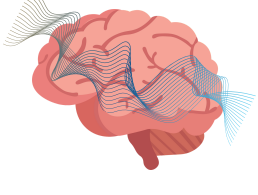
LEARNING TO PREDICT FUTURE REWARDS: Dissociating Learning 'What' Will Happen from 'When' It Will Happen

When an organism learns to anticipate future events important for its survival (e.g., reward) it learns about multiple features of those events. For example, it can learn toanticipate the "value" of the forthcoming event, it can learn to anticipate specifically "what" will happen next, and it can also learn to anticipate "when" the event will occur. Does learning about an event's value, identity, and time involve separate underlying learning systems or do these all derive from the same underlying system? We have been exploring the hypothesis that learning "what" and "when" involve dissociable psychological and neurobiological processes. I'll present some of our studies exploring this hypothesis in rats using behavioral tasks combined with various neurobiological tools (selective brain lesions, structure suppression, neuroimaging). In addition, I'll present data from some recent parallel studies examining event identity and time learning in humans using a reaction time task in which we can also probe the role of awareness in learning. While we are just beginning to probe the neurobiological differences between "what" and "when" learning, those underpinnings appear dissociable and largely conserved across the animal kingdom.



Thursday 30th March 2023
Time: 15:00h

Faculty of Psychology
Campus Mundet | Sala de Graus

Hosted by: Antonio Alvarez Artigas