

Virtual DANDRITE Seminar

Thursday 12 November 2020

14.00 – 15.00

Online via Zoom

Please find Zoom link via the Outlook calendar invitation. If you have not received this, please write an e-mail to Kathrine: kh@dandrite.au.dk



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Detecting and integrating relevant event relationships

We form memory not only to remember the past but also to predict the future. My research program studies neurophysiological and circuit mechanisms through we learn structured relationships among events and later transform them to infer adaptive behaviour. I will discuss recent rodent work in which we identified neuronal ensemble activity in the medial prefrontal cortex (mPFC) that supports the extraction of commonality among multiple cue-threat relationships over minutes of new experiences or weeks of consolidation processes. Also, I will show how this prefrontal coding is modulated by transient cholinergic signal sensitive to uncertainty about cue-threat relationships. These findings suggest that the mPFC may actively seek latent links between events across multiple time scales, thereby enabling efficient memory encoding and schematization.