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**PICARDO Michel**

Researcher/Chercheur (CR, Inserm)

michel.picardo@inserm.fr

Equipe du **Dr Rosa COSSART**, *Empreinte développementale sur l'organisation fonctionnelle des réseaux corticaux*

Institut de Neurosciences de la Méditerranée (INMED), INSERM UMR1249, Aix Marseille Université, Marseille France

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### **S3-L1 ‘Emergence of cell assemblies in the developing hippocampus.’**

The internal self-organization of activity in the adult mouse CA1 hippocampus has been uncovered by the Cossart lab in awake mice (Villette et al., 2015, Malvache et al. 2016). This internal organization is supported by a limited set of assemblies activated during network bursts occurring during rest and associated with sharp-wave ripples. Such assemblies represent default building blocks that can be reused and combined to encode or retrieve spatio-temporal information: during run, CA1 dynamics self-organize into recurring sequences that bind together these assemblies in separate segments and integrate spatio-temporal information. Using two photon calcium imaging in awake pups we aim at understanding how development shapes this internal functional organization of adult hippocampal networks.

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