

**MASTER 2 Neurosciences Fondamentales et Cliniques**  
**UCB Lyon 1, Lyon, France**

**Internship proposal 2020-2021**  
**(internship from January to end of May 2021)**

**Host laboratory:**

Centre de Recherche en Neurosciences de Lyon  
Centre Hospitalier Le Vinatier - Batiment 462 - Neurocampus  
95, boulevard Pinel - 69675 Bron Cedex

**Host team:**

MEMO team - <https://www.memoteam.org/>

**Internship supervisors:**

Dezso Nemeth – Head of the team, research director – [nemethd@gmail.com](mailto:nemethd@gmail.com)  
Lison Fanuel – Post-doctoral researcher – [lison.fanuel-feuillas@univ-lyon1.fr](mailto:lison.fanuel-feuillas@univ-lyon1.fr)

**Project title: Enhancing implicit learning: the role of environment**

Cognitive mechanisms of implicit learning

**Project summary (approx 10 lines):**

Implicit probabilistic learning corresponds to the development of knowledge about regularities embedded in the environment without awareness nor intention of learning (e.g., Cleeremans & Jiménez, 1998; Howard et al., 2004). The aim of the internship project will be to explore environmental factors (e.g., sensory modality, exposure duration) influencing and/or benefiting implicit learning in healthy young adults. The project will be based on behavioral techniques to investigate cognitive mechanisms underlying implicit learning. Depending on his/her interest, the intern can also be associated to currently ongoing studies investigating neural mechanisms of implicit learning using electrophysiology and transcranial magnetic stimulation.

**3-5 recent publications:**

Nemeth, D., Janacsek, K., Polner, B., & Kovacs, Z. A. (2013). Boosting human learning by hypnosis. *Cerebral cortex*, 23(4), 801-805.  
Kóbor, A., Janacsek, K., Takács, Á., & Nemeth, D. (2017). Statistical learning leads to persistent memory : Evidence for one-year consolidation. *Scientific Reports*, 7(1).  
Simor, P., Zavecz, Z., Horvath, K., Éltető, N., Török, C., Pesthy, O., ... & Nemeth, D. (2019). Deconstructing procedural memory: Different learning trajectories and consolidation of sequence and statistical learning. *Frontiers in psychology*, 9, 2708.  
Kiss, Nemeth, & Janacsek (2019). Stimulus presentation rates affect performance but not the acquired knowledge—Evidence from procedural learning. *BioRxiv*.

Please send your proposal to [emiliano.macaluso@univ-lyon1.fr](mailto:emiliano.macaluso@univ-lyon1.fr) and [marion.richard@univ-lyon1.fr](mailto:marion.richard@univ-lyon1.fr) for publication on the website.