



UE Neural Basis of Cognition - with the support of Labex Cortex

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AUDITION

Monday November 2, 2020

- 09.00-10.30 **Introduction to the auditory system.** X Perrot (CRNL)
10.45-12.00 **Hearing in adverse listening conditions: a cognitive challenge.** Anne Kosem (CRNL)
- 13h30 : Neuromythology*
- 14.00- 15.15 **How can music and speech help us understand the brain?** Anna Fiveash (CRNL)
15.30-17.00 **Animal acoustic communication: From brain to behavior.** N Mathevon (CRNL)

VISION

Wednesday November 4, 2020

- 09.00-10.20 **Conceptions and open questions on the visual brain.** Y Rossetti (CRNL)
10.30-12.00 **Neuropsychological approach to the dorsal pathway.** L Pisella (CRNL)
- 13h30 : Neuromythology*
- 14.00-15.20 **Animal electrophysiology of the ventral route.** P Girard (CERCO Toulouse)
15.30-16.50 **Neural coding in the visual system.** O Marre (Institut de la Vision, Paris)

PLASTICITY

Friday November 6, 2020

- 09.00-10.20 **Introduction, concepts and paradigms.** P Giraux (LIBM, St Etienne)
10.30-11.50 **Plasticity of body and space representations.** C Brozzoli (CRNL)
- 13h30 : Neuromythology*
- 14.00-15.20 **Normal and pathological neurodevelopment of cognition.** A. Curie (HFME, ISCMJ)
15.30-16.50 **Sensori-motor development.** C Schmitz (CRNL)

ACTION

Monday November 9, 2020

- 09.00-09.30 **From reflexes to intention: questions for the motor system.** Y Rossetti (CRNL)
9.35-10.40 **Electrophysiological approaches to decision making.** D Thura (CRNL)
10.55-12.00 **Voluntary action and automatism: cortico-stripped circuits.** L Tremblay (ISCMJ)
- 13h30 : Neuromythology*
- 14.00-15.20 **Neurocognitive bases of tool use.** F Osiurak (LEMC, Lyon 2)
15.30-16.50 **Anticipation and correction of errors : a sensori-motor dialogue.** B Burle, (Marseille)

Final examination: December 1st, 2:00 PM

A few representative links:

CRNL: <https://crnl.univ-lyon1.fr/index.php/fr>

Labex Cortex: <https://labex-cortex.universite-lyon.fr/>

The visual brain:

<https://www.sciencedirect.com/science/article/pii/B9780444636225000115?via%3Dihub>

Blindfolded visual learning: <https://www.pnas.org/content/115/13/3267.long>

Audition : <http://www.cochlea>

<https://www.bioscience.org/2000/v5/d/giard/fulltext.htm>

Reasoning in intellectually disabled patients:

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0149717>

Learning and Plasticity: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5697733/>

Neuromythology: <http://trajectoires.site/?p=610>