



Lille
Neuroscience
& Cognition



SEMINAIRE 2026

08 Avril
15h30

Biserte
Meeting Room

Invité par l'équipe
« **Lille Neurodegeneration** »

Dr. Eric Boué-Grabot

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(Université de Bordeaux - Centre Broca)

“Purinergic signaling in the brain: Implication of P2X receptors in health and diseases”

P2X receptors are ATP-gated cation channels that play important roles in brain signaling by mediating the effects of extracellular ATP released by neurons and glial cells. I will briefly introduce the role of P2X receptors in synaptic function and plasticity, and then focus on P2X4, a receptor whose surface expression is tightly regulated under physiological conditions but strongly altered in several central nervous system disorders. I will present several examples illustrating the role of P2X4 in central diseases, with a particular focus on Amyotrophic Lateral Sclerosis (ALS). Using genetic mouse models, including P2X4KI and P2X4KO mice, I will highlight how neuronal and microglial P2X4 differentially contribute to synaptic dysfunction, neuroinflammation, and disease progression.