

AXE NEUROSCIENCES

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Integrative functional genomics in postmortem tissues from the ALS/FTD disease spectrum identify new biomarkers and mechanisms for patient stratification

Amyotrophic Lateral Sclerosis (ALS) and Frontotemporal Dementia (FTD) are fatal neurodegenerative diseases with overlapping genetics and shared pathology in the form of TDP-43. By integrating clinical data with gene expression, mRNA splicing, and genetic variation derived from postmortem bulk and single-cell tissue samples, we are mining patient tissues for biological insight. We previously identified increases in inflammatory glial cells in both ALS and FTD associated with decreased survival. We will present new unpublished results combining 11 brain and spinal cord regions to identify shared signatures of ALS progression and genetic associations with disease risk across tissues. Additionally, we will share the results of a meta-analysis of single-cell RNA-seq in ALS/FTD cortex (n=252) to expand the catalog of TDP-43-associated splicing events which can be localized to specific vulnerable populations of neurons.

Mardi 4 novembre 2025

9h à 10h

**R05.212B
CRCHUM**

L'AUDACE DE
CHERCHER
PLUS LOIN

Séminaire organisé par Valérie Mongrain

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