# Renaud La Joie

***Promises and pitfalls of Alzheimer's biomarkers in patients with FTD syndromes***

Neurodegenerative diseases are characterized by an unperfect clinic-pathological correspondence, limiting the ability to determine the specific etiology of cognitive or behavioral impairment in living patients.

In this session, I will first briefly review the recent emergence and validation of biomarkers to detect Alzheimer's disease (AD) neuropathological changes using positron emission tomography, cerebrospinal fluid or even blood measurements. These tools have given researchers a possibility to study AD pathophysiological mechanisms in vivo and have improved clinicians' ability to diagnose patients and potentially orient them towards disease-specific clinical trials. Unfortunately, such markers do not yet exist for Fronto-Temporal Lobar Degeneration (FTLD) neuropathology or it subtypes (TDP-43, tau, or FUS proteinopathies).

In this context, is there any value in using AD biomarkers for the assessment of patients with Fronto-Temporal Dementia (FTD) syndromes, for whom the probability of underlying AD neuropathology is usually low? On the one hand, AD biomarkers can help identify patients with FTD syndromes due to AD neuropathology, i.e. atypical clinical presentations of AD. On the other hand, these biomarkers could result in a misestimation of the underlying etiology of clinical impairment: due to the common co-occurrence of AD and FTLD neuropathologies, positive AD biomarkers might not always indicate that AD is the sole or the primary neuropathology. Finally, AD biomarker will be discussed in the context of a multimodal assessment of patients with FTD syndromes.