

# Séminaire

Département des sciences de  
l'imagerie médicale et des  
radiations

## *Thalamo-cortical profiles as predictors of postoperative outcomes in pharmaco-resistant epilepsy*



### **Tudor Sintu**

*Étudiant au doctorat au programme de sciences des radiations et imagerie biomédicale*

**Premier séminaire de recherche pour l'étudiant sous la direction des Pre Sara Larivière & Pre Élise Roger**

Évaluation Étudiante: Rosalie Laflamme

In drug-resistant epilepsy (DRE), surgical resection is often the only curative option, yet long-term seizure freedom after resection is achieved in only ~50% of patients.

We seek to establish reliable pre-surgical biomarkers in the thalamus, a critical brain network hub in epilepsy, to predict surgical outcomes in DRE.

Our study will unfold in multiple steps: (1) Quantify thalamic morphology at the nucleus level using structural MRI and map their functional profiles using network mapping; (2) Use susceptibility-weighted imaging to search for complementary thalamic biomarkers; (3) Conduct an investigation using stereoelectroencephalography into the temporal dynamics in the thalamus; (4) Integrate these profiles to develop a predictive model of post-surgical seizure control and cognitive outcomes.

This work will advance precision medicine in epilepsy by offering novel biomarkers to optimize surgical strategies and improve patient outcomes, as well as provide mechanistic insight into thalamic modulation of epileptogenic networks.



LUNDI  
11 mai 2026  
12 h



Z5-3001