

# Insular interictal PET hypometabolism in patients with ictal asystole

## Authors:

Stanislas LAGARDE<sup>1</sup>, Rinki SINGH<sup>2,3</sup>, Fabrice BARTOLOMEI<sup>1</sup>, Eric GUEDJ<sup>4,5,6</sup>

## Affiliations:

1. Aix Marseille Univ, APHM, INSERM, INS, Inst Neurosci Syst, Timone Hospital, Epileptology Department, Marseille, France
2. Department of Clinical Neurophysiology, King's College Hospital, London, United Kingdom
3. School of Biomedical Engineering and Imaging Sciences, King's College London, United Kingdom
4. APHM, Timone Hospital, Nuclear Medicine Department, Marseille, France
5. Aix Marseille Univ, CNRS, Ecole Centrale Marseille, UMR 7249, Institut Fresnel, Marseille, France
6. Aix Marseille Univ, CERIMED, Marseille, France

Corresponding Author : Dr Stanislas LAGARDE, Service d'Epileptologie & de Rythmologie Cérébrale, Hopital Timone, 264 Rue Saint-Pierre, 13005 MARSEILLE / [Stanislas.lagarde@ap-hm.fr](mailto:Stanislas.lagarde@ap-hm.fr)

## BRIEF SUMMARY

We aimed to explore brain area(s) involved in the generation of ictal asystole (IA) by analysing the interictal  $^{18}\text{F}$ -FDG PET metabolism of patients with IA recorded by video-EEG or video-SEEG.

We investigated the metabolic changes of 12 patients with IA (mostly with temporal epilepsy and “negative” MRI) in comparison with 1) 19 healthy subjects (similar age and sex), 2) 55 patients without IA (similar age and seizure onset zone).

Whole-brain statistical analysis of PET at the voxel-level, showed that in comparison to healthy subjects and to patients without IA, a hypometabolism in the right posterior insula characterized patients with IA.