LIÈGE université
GIGA institute
CONSCIOUSNESS

Completing the Clinical Report

CSG PET workshop

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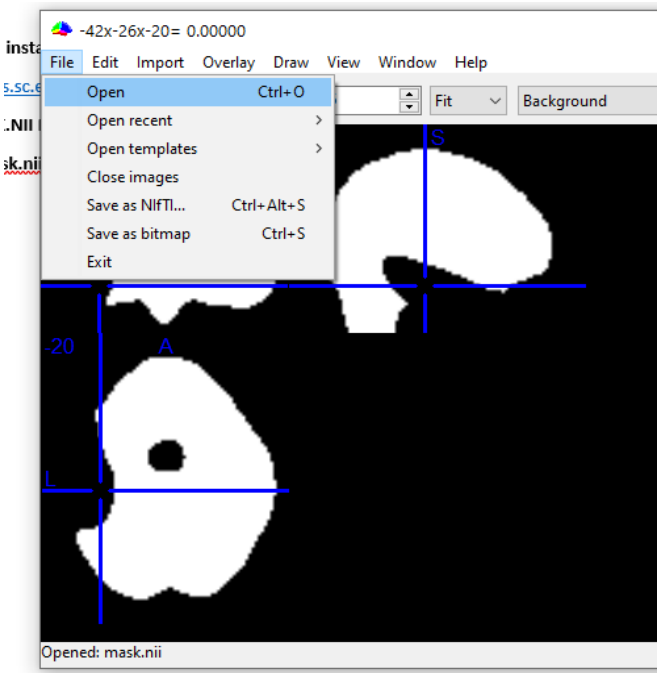
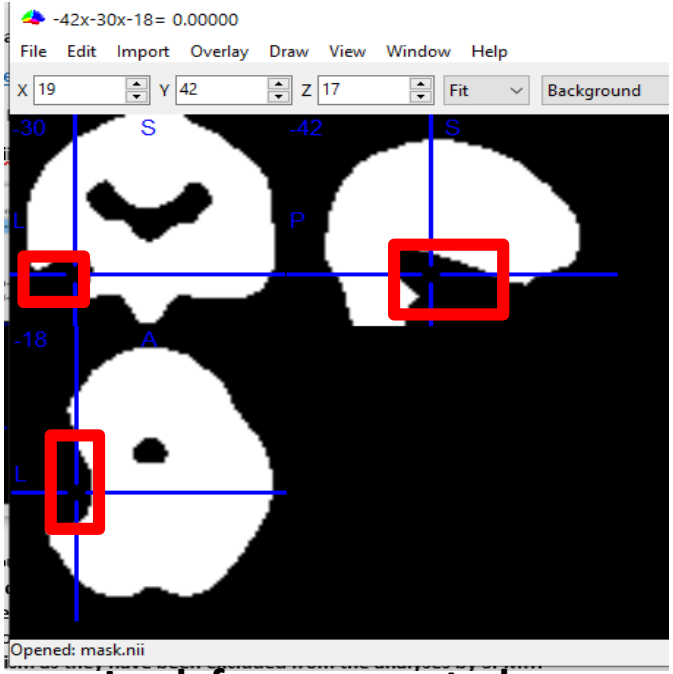
Quality check: mask

MRIcron



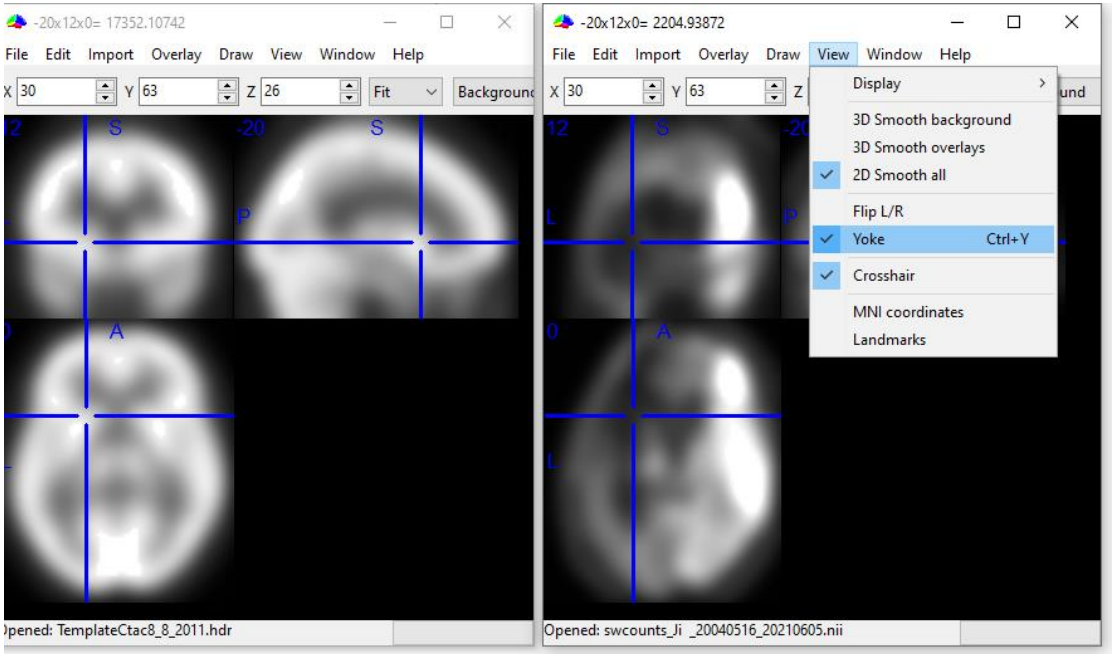
Open MASK.nii file

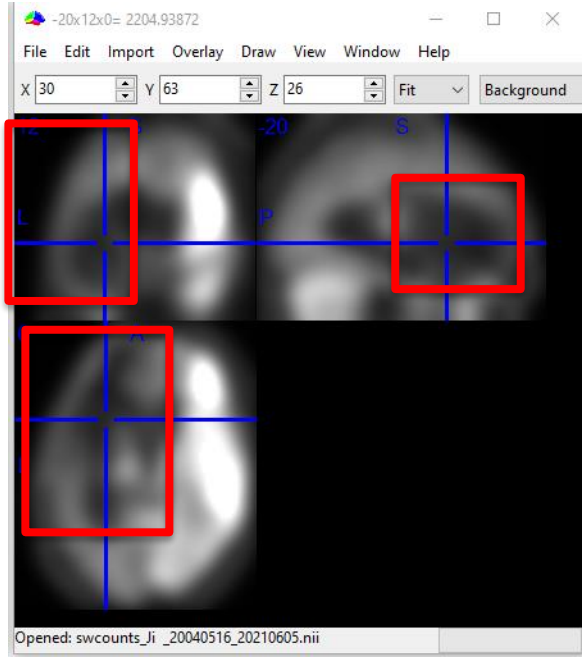


Look for unexpected black holes!

Quality check: spatial normalization

MRIcron





Open sw.nii file and TemplateCtac8_8_2011.nii files (yoke both!)

Look for spatial incongruences

Clinical Report

Global SUV:

Allows to provide an estimate of the average glucose metabolism within the brain gray matter.

→ **Report average global SUV decrease**

When the global SUV of the patient is compared to that of the healthy controls, we get an *absolute* estimate of how much, within the patient's brain, glucose metabolism is decreased (on average).

→ **Copy-paste patient SUV image**

SPM maps of relative hypometabolism and relatively preserved brain regions:

Allow to provide an estimate of the regions that present *relative* decrease and *relative* preservation of glucose metabolism within the brain, compared to healthy controls.

→ **Copy-paste patient SPM maps**

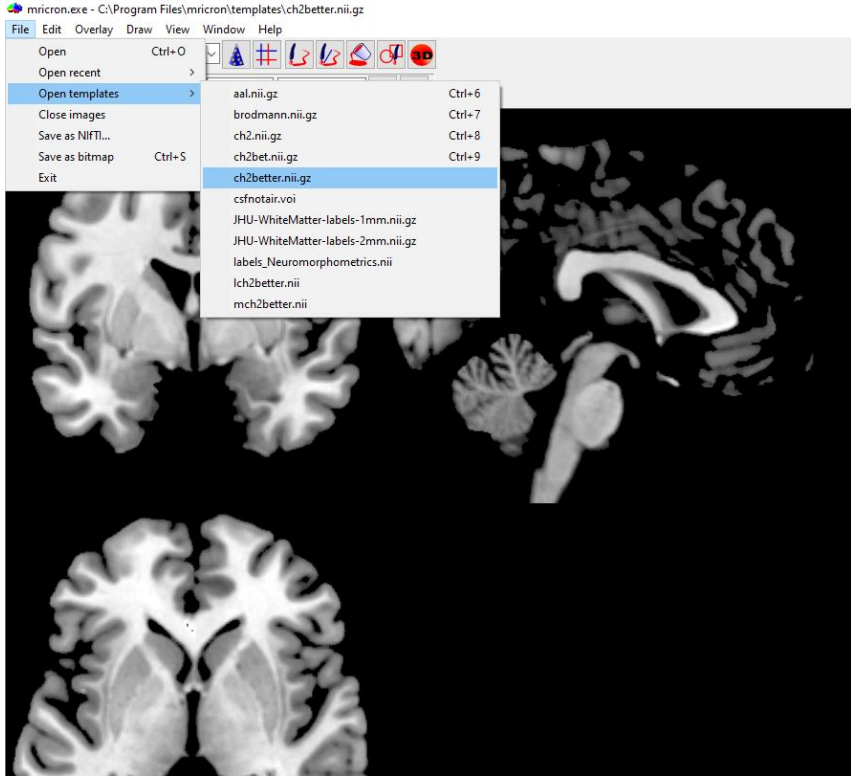
These maps allow to answer to the questions:

- What are the most impaired regions within this patient's brain?

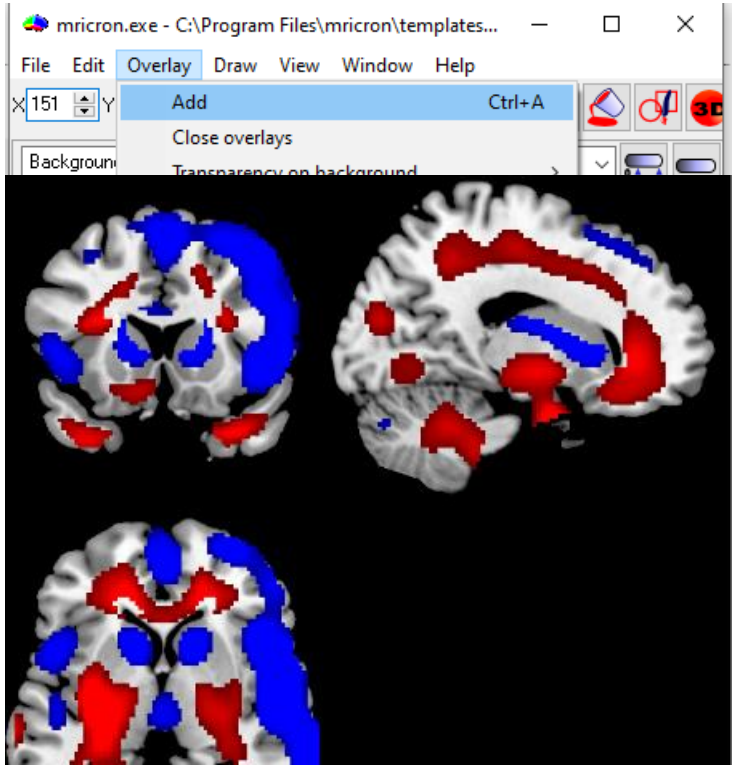
- What are the most preserved regions within the patient's brain?

→ **Describe the anatomical localization of relative hypometabolism and preserved brain regions**

Anatomical localization MRIcron

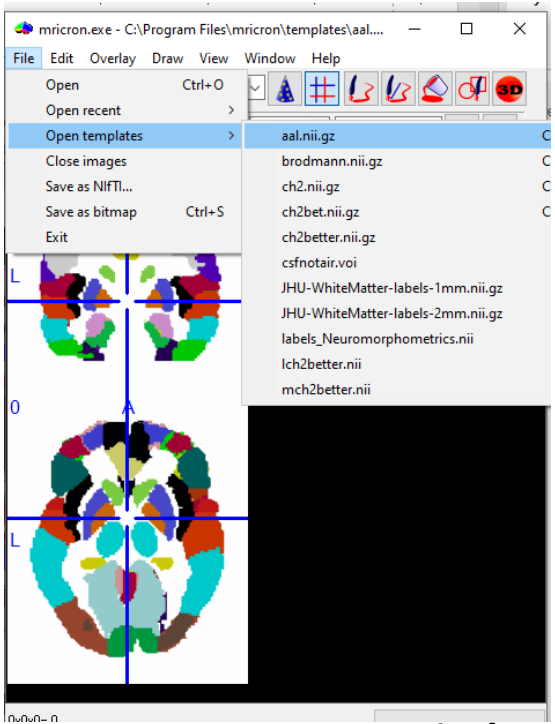


Open high resolution anatomical template ch2better

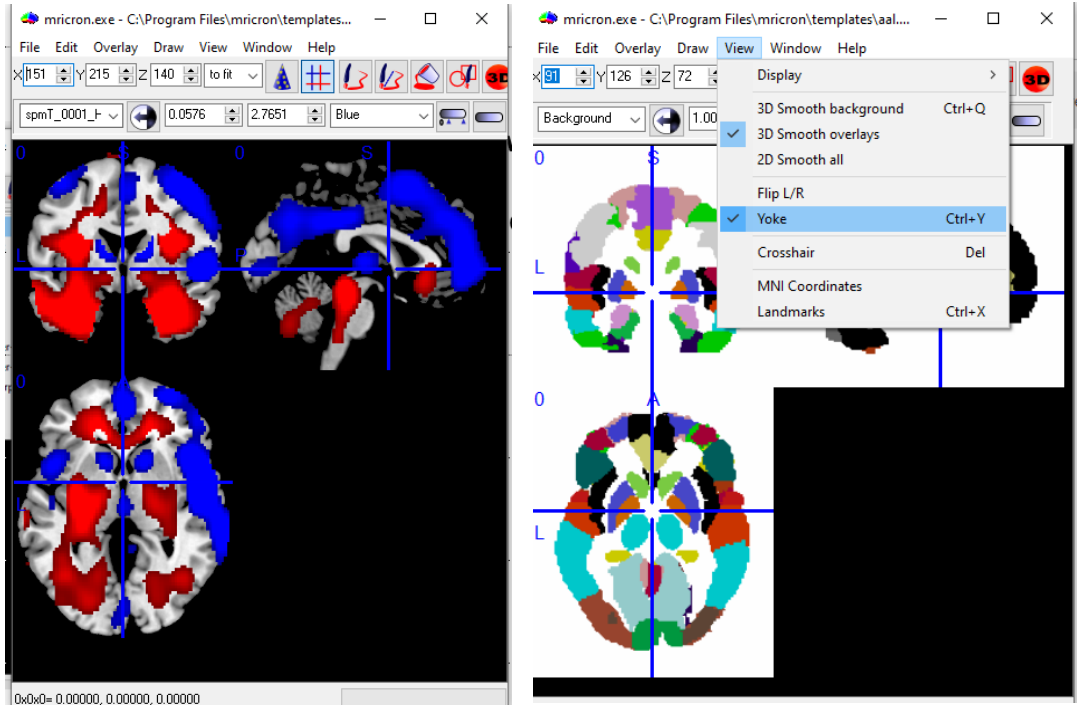


Overlay spmT_0002_Pres.nii and spmT_0001_Hypo.nii maps

Anatomical localization MRIcron



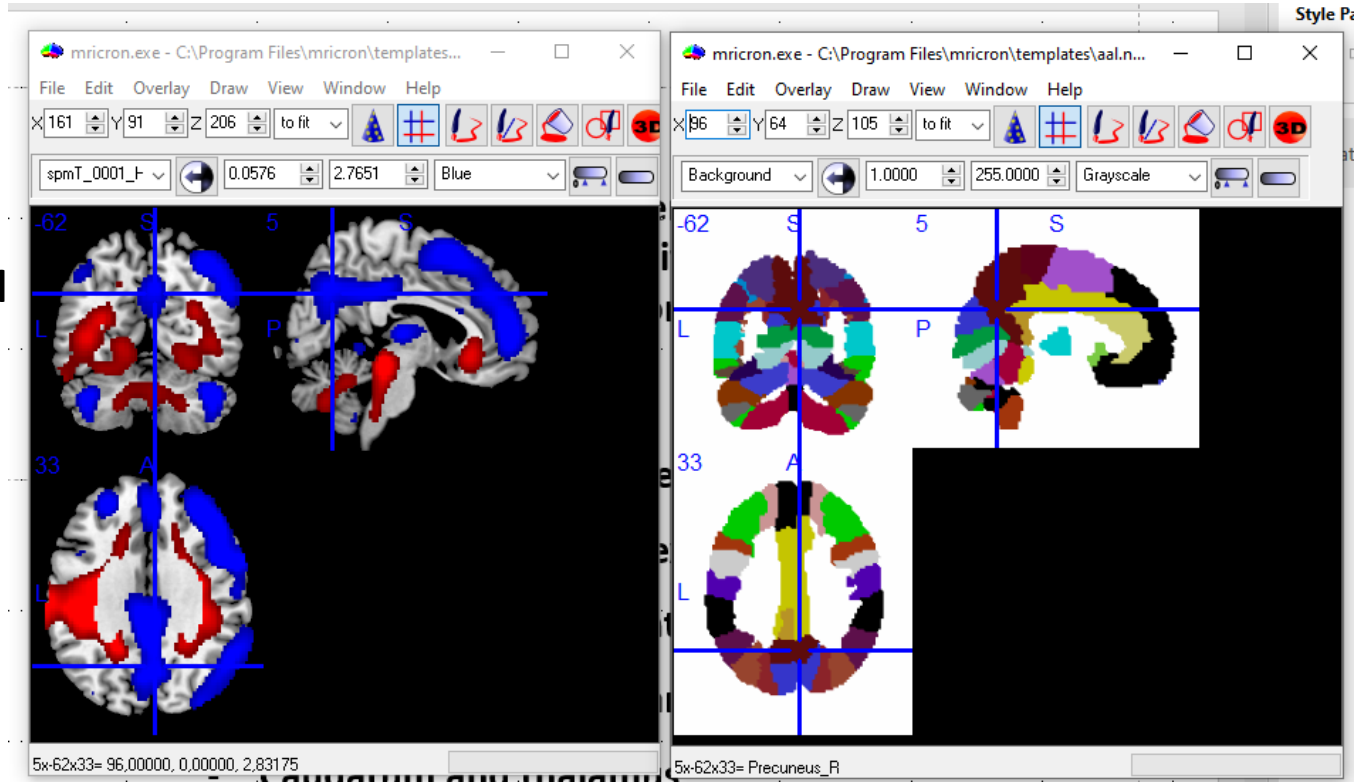
Open new MRIcron window and open the Automated Anatomical Labelling Atlas (AAL)



(first time you do this, you have to yoke both windows!)

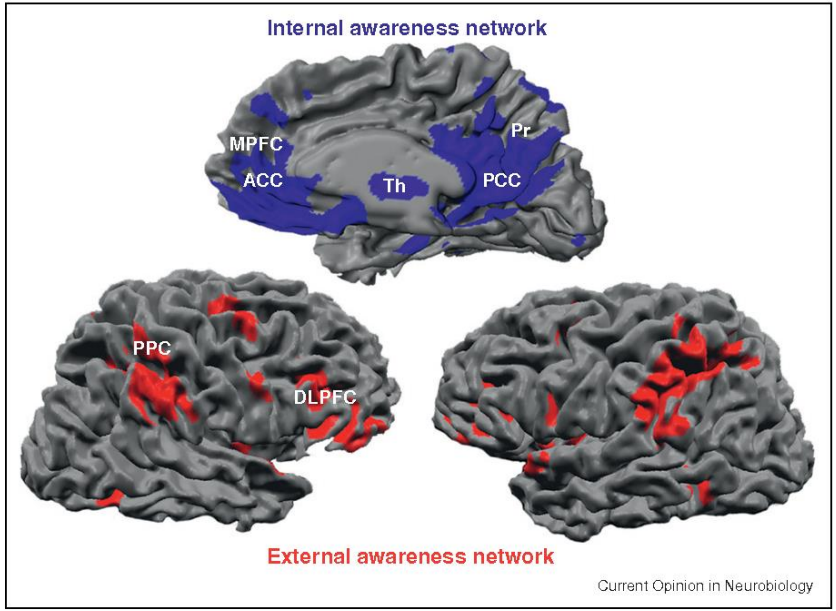
Anatomical localization MRIcron

Navigate around the clusters of relative hypometabolism and relatively preserved brain regions – you can see the corresponding label in the AAL window



Anatomical localization - maximum surveillance on:

- Internal awarness and external awarness networks (medial and lateral fronto-parietal regions)
- Language areas
- Sensorimotor cortices
- Basal ganglia and thalamus
- Brainstem




Thank you!

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