CENTRO INTEGRAL DE NEUROCIENCIAS
HOSPITALES hm CINAC

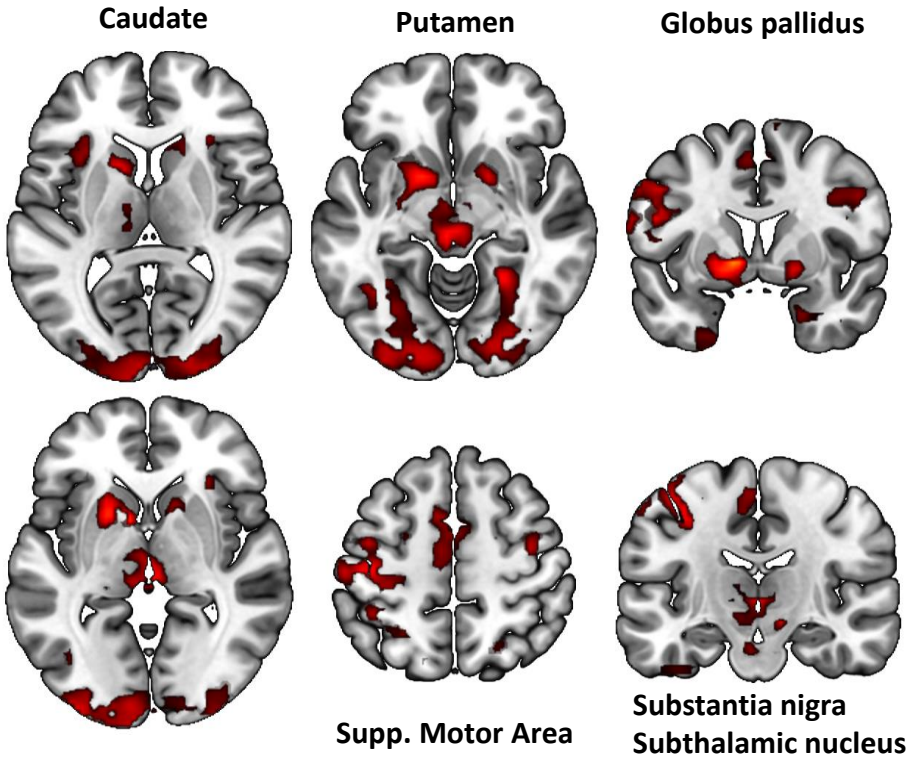
FUNDAÇÃO Bial

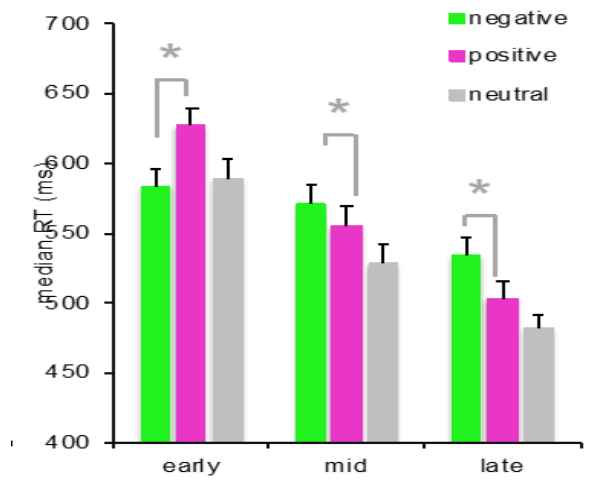
Automatic inhibitory control

Inhibitory control is a key mechanism to suppress unwanted actions and thus regulate behaviour. We suggest that inhibitory control can be **automatized** and learnt via **stimulus-stop** associations.

We aimed to:

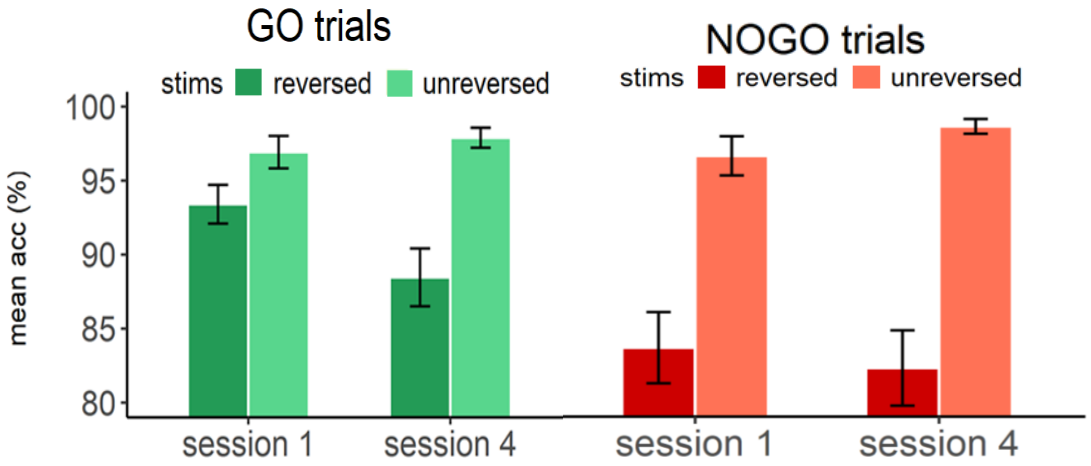
1. Elicit and measure automatic inhibition.
2. Define its underlying neural circuitry.
3. Understand how emotions can interfere with automatic inhibition.
4. Uncover potential neurophysiological signatures.

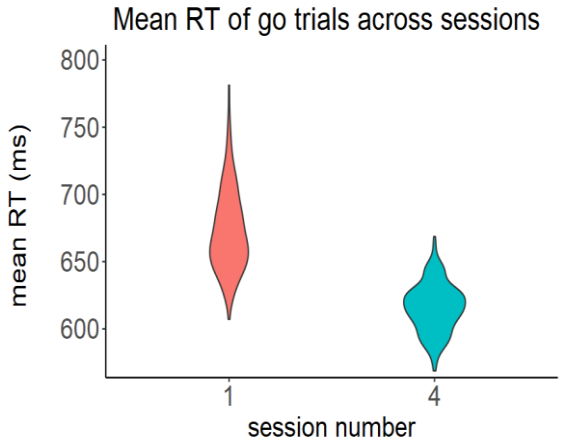




Our results suggest that:

a. We can successfully **measure** automatic inhibition.
b. The **neural network** for automatic response inhibition relies on increased subcortical and cortical activation of motor areas.
c. The presence of **negative emotional** might hinder the disengagement from the habitual system and
d. Corticospinal excitability might not be a good **neurophysiological signature** of automatic inhibition.





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